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RESEARCH IN TECHNOLOGY-ENHANCED CONTENT
AND LANGUAGE INTEGRATED LEARNING (CLIL)



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Facultad de Educación

Urb. Villafranca del Castillo

Calle Castillo de Alarcón, 49

28692 Villanueva de la Cañada

Madrid

editoraverbeia@ucjc.edu

linguisticaverbeia@ucjc.edu

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MONOGRÁFICO 5

RESEARCH IN TECHNOLOGY-ENHANCED CONTENT AND LANGUAGE INTEGRATED LEARNING (CLIL)

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Research in Technology-Enhanced Content and Language Integrated Learning (CLIL)

Investigación en torno a las Tecnologías de la Información y de las Comunicaciones en el enfoque Aprendizaje Integrado de Contenidos y Lenguas Extranjeras (AICLE)

Salvador Montaner-Villalba
Universitat Politècnica de València, Spain
smonvil@idm.upv.es

Ana M. Gimeno-Sanz
Universitat Politècnica de València, Spain
agimeno@upvnet.upv.es

AN OVERVIEW OF THE VOLUME

Having begun the third decade of the 21st century, we can say that language learning and teaching have evolved considerably; subsequently, both language learners and language teachers have had to adapt their roles to new teaching paradigms, methods, and the constant development of technological advancements. While, on the one hand, language learners have become protagonists of their own learning process, on the other, language teachers have taken on a role of guiding and tutoring. From this premise, various educational approaches have emerged with the ultimate purpose of motivating language learners and offering them an enriching experience. Content and Language Integrated Learning (CLIL) has proven to be one of the most influential educational approaches throughout the last two decades. Moreover, CLIL is currently more plausible than ever due to the increasing use of Information and Communications Technologies (ICT) in foreign language learning. This special issue is the result of various types of empirical research and pedagogies that have been carried out taking into account, on the one hand, the premises of CLIL –with a special focus on the foreign language learning component– and, on the

other, an enhanced use of ICT. As the title suggests, this special volume examines this blooming combination of CLIL and ICT by offering the latest research and didactic practices in the area and is aimed at both language and non-language teachers, and researchers alike. The issue encompasses five articles and a book review.

In the first paper, Gimeno-Sanz focuses on the CLIL authoring tool and repository of ready-made materials known as *CLILstore*, which is composed of two integral components: Multidict (a multilingual multiple-dictionary interface) and Wordlink (an online tool enabling all the words on a website to become automatically linked to sundry dictionaries in various language pairs). The author closes her paper emphasizing the validity of both Multidict and Wordlink and concludes offering a discussion on how teacher training courses focusing on *CLILstore* can become useful so as to improve CLIL skills.

In the second article, Bellés-Fortuño and Bellés-Calvera analyse EFL writing skill of forty first-year undergraduate students taking a CLIL module in History of the Classical World at *Universitat Jaume I* (Valencian Region, Spain) with the aid of *Google My Maps*. In this study, the participants were required to create a custom map in which they had to describe five Roman vestiges that they had previously selected. The outcomes of this research proved that students' L1 negative transfer could lead to both lexical as well as grammatical inaccuracy. According to the authors, *Google My Maps* is proven to be a valid digital resource in order to consolidate not only History content but also to improve foreign language learning within an online learning setting.

After this, Montaner-Villalba, in the third paper of this special issue, aims to verify whether blogging helps EFL learners to improve the quality of their writing skills using English through CLIL. A group of 20 third-year compulsory secondary school students learning Geography at a state school in Valencia (Spain) participated in this experiment. Whereas, on the one hand, one group of 11 students completed their various writing skills in the treatment group through blogging, on the other, a second group of eleven learners participated as a control group with the aid of *Google Docs*. The findings of this research provided evidence that there was a significant difference between the treatment group and the control group, confirming the research hypothesis. In addition, the author analysed an interactive digital written task undertaken by the treatment group where the outcomes proved that blogging helped learners improve their EFL written competence through posting and exchanging comments while blogging.

In the fourth paper, Piquer, Morgado and Zverinova, within the framework of the EU-funded *Interdisciplinary Collaborative Approaches to Learning and Teaching* (INCOLLAB) innovation project examined two interdisciplinary approaches through CLIL, the

integrated learning of content and language, and the concomitant collaboration among content and language lecturers in order to plan and design Open Educational Resources (OERs) which are adjusted and, also, utilized in similar educational contexts at tertiary education. The authors of this paper offer an outstanding description of two specific proposals of OERs which are related to the theme of “Autonomy Support, a part of the subject of “Developmental Psychology”. This paper concludes by analyzing the findings of their implementation in three real contexts.

The fifth paper, by Pérez Agustín and Mortimore, analyzes the advantages of implementing storytelling techniques with the aid of the *Storyjumper* online software, which allows learners to follow a narrative comprised of beginning, climax and resolution. This study was carried out with students from Primary Education. Both *Google Classroom* as well as *Google Meet* were used focusing on two main objectives: enhancing learner creativity that will lead to non-guided extensive language output and fostering both oral and written language skills.

Lastly, García-Laborda reviews in a concise and critical manner the book *The Changing Face of ESP in today's classroom and workplace (Education)*. This book, edited by Nalan Kenny and Linda Escobar and prefaced by Elena Bárcena Madera, contains various useful and effective applications of English for Specific Purposes (ESP), teaching activities for classroom settings. Moreover, this volume on ESP offers interesting insights on how ESP can be combined with, and adopted by other disciplines, such as Content and Language Integrated Learning (CLIL), English Language Teaching (ELT), or English as a Medium of Instruction (EMI).

This monograph on Technology-Enhanced Content and Language Integrated Learning is indeed a volume which will be of great benefit and interest not only to non-language teachers and foreign language teachers interested in CLIL, but also to teacher trainees and future researchers interested in furthering their knowledge of Content and Language Integrated Learning through ICT. This is why we strongly believe that the readers will learn from and enjoy the well-documented research and pedagogical practices in this volume. We are convinced that this volume will offer our readers a firm empirical basis on which to improve their teaching of non-linguistic areas through the use of technology.

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ACADEMIC AND PROFESSIONAL PROFILE OF THE EDITORS OF THE SPECIAL ISSUE**Dr. Salvador Montaner-Villalba**

Salvador Montaner-Villalba is PhD in Computational Linguistics at UNED (Universidad Nacional de Educación a Distancia). Speaker on TELL (Technology-Enhanced Language Learning) with a particular interest in CLIL (Content and Language Integrated Learning), MALL (Mobile-Assisted Language Learning) and OER (Open Educational Resources), as well as Active Methodologies through ICT, in English as a foreign language. Dr. Montaner-Villalba is an ESP (English for Specific Purposes) Lecturer at Universitat Politècnica de Valencia and EFL Teacher in Secondary Education. He is currently Chair of Computer-Mediated Communication Special Interest group for EuroCALL (<http://eurocall-languages.org>). He is a Teacher Trainer in ICT in foreign language learning, having collaborated as an online teacher trainer at INTEF (*Instituto Nacional de Tecnologías Educativas y Formación del Profesorado, Ministerio de Educación y Formación Profesional*).

Prof. Ana M. Gimeno-Sanz

Ana M. Gimeno is Full Professor of English Language in the Department of Applied Linguistics at the Universitat Politècnica de València (UPV), Spain. She has published numerous research papers on language learning and teaching, more specifically in the fields of English for Specific Purposes (ESP), Computer-Assisted Language Learning (CALL), and Content and language Integrated Learning (CLIL). Prof. Gimeno is Head of the CAMILLE Research Group, devoted to research in CALL and e-Learning. Ana Gimeno is Associate Editor of ReCALL (Q1 journal published by Cambridge University Press) and serves on the Editorial Board of Computer-Assisted Language Learning Journal (Q1 journal published by Taylor and Francis), as well as being editor-in-chief of *The EUROCALL Review*. She was President of the European Association for Computer-Assisted Language Learning (EuroCALL) from 2005 to 2011, and is currently President of the world organisation for computer-assisted language learning, WorldCALL (www.worldcall.org).

Integrating CLIL in Education: Exploring Teachers' Perceptions toward Using a Dedicated Online Tool

Implantando AICLE en la enseñanza: estudio sobre la percepción de los profesores ante el uso de una herramienta en línea ad hoc

Ana M. Gimeno-Sanz
Universitat Politècnica de València, Spain
agimeno@upvnet.upv.es

Abstract

This paper focuses on a dedicated Content and Language Integrated Learning (CLIL) authoring tool and repository of ready-made materials created within the EU-funded CLIL Open Online Learning (COOL) project, *CLILstore*, and its two integral components: Multidict (a multilingual multiple-dictionary interface) and Wordlink (a tool that allows all the words on a website to become automatically linked to sundry dictionaries in various language pairs). The validity of these tools and a discussion on how teacher training courses that focus on the use of *CLILstore* can become helpful to develop CLIL skills, and how *CLILstore* was helpful in achieving this, close the article.

Key words: Content and Language Integrated Learning, *CLILstore*, *Wordlink*, *Multidict*, teacher education.

Resumen

El artículo se centra en la descripción de *CLILstore*, una herramienta de autor y un repositorio de materiales didácticos para el Aprendizaje Integrado de Contenidos y Lenguas Extranjeras (AICLE), creados a través del proyecto cofinanciado por la Comisión Europea, CLIL Open Online Learning (COOL). Además, se describen los dos componentes integrales de *CLILstore*, es decir, *Multidict* (una interfaz multilingüe de múltiples diccionarios) y *Wordlink* (una herramienta que permite enlazar todas las palabras de una página web a una amplia selección de diccionarios en línea gratuitos). El artículo se cierra argumentando la validez de estas herramientas y postula que los cursos de formación de

profesores en torno a *CLILstore* pueden ser también de gran utilidad para que los docentes se familiaricen con los conceptos que subyacen a la metodología AICLE, y la aportación de *CLILstore* a este fin.

Palabras clave: Aprendizaje Integrado de Contenidos y Lenguas Extranjeras, *CLILstore*, *Wordlink*, *Multidict*, formación de profesores.

1. INTRODUCTION

CLIL, the acronym for Content and Language Integrated Learning, was launched in 1996 by UNICOM, University of Jyväskylä (Finland), and the European Platform for Dutch Education, and was recognized as a teaching methodology by the European Commission in its Communication No. 449 on Promoting Language Learning and Linguistic Diversity: An Action Plan 2004 – 2006, published in 2003. Throughout these years we have witnessed how CLIL has steadily rooted its teaching principles and is slowly becoming a dominant methodology in all sectors of education that are sensitive to bilingual education. Research and reflective practice literature is currently abundant and CLIL is being the focus of an increasing amount of empirical studies proving the methodology's worth (Gimeno, Dónaill and Andersen 107).

As Marsh, Marsland and Stenberg (*Integrating Competencies for Working Life 2*) put it "CLIL is an educational approach in which non-language subjects are taught through a foreign, second or other additional language". As described by Darn ("Content and Language Integrated Learning (CLIL): A European Overview" 2), "the theory behind CLIL has foundations in interdisciplinary/cross-curricular teaching which provides a meaningful way in which students can use knowledge learned in one context as a knowledge base in other contexts." Non-linguistic content is used to teach a foreign language and students acquire new knowledge through the medium of that language. No doubt, however, students must have some basic knowledge of the language they are learning in order to understand the content at an acceptable pace, within a particular context, and a basic understanding of the topic in their native language. Because the aim of a CLIL class is primarily the subject matter and the foreign language is secondary, despite it being a crucial pillar, students perceive the completion of language learning activities in a different light because the activities relate to the subject matter at hand and are therefore not devoid of context and meaningfulness. They gain meaning through being useful for a particular goal, that of understanding, exploring, and acquiring new knowledge relating to the subject matter. One could argue, however, that there is a narrow

line between insufficient knowledge of the foreign language (FL), a fact that could lead to a breakdown in learning content, and having sufficient knowledge of the FL to delve into the content whilst simultaneously practising and improving proficiency in the FL.

There is little evidence, however, to show that the comprehension of content is impeded by lack of language competence; a student could very well engage in extensive reading and understand the meaning of the text and yet have a poor knowledge of the foreign language. If we take a technical text as an example, vocabulary is no doubt a key element so, if a student is capable of understanding the technical vocabulary in the text, s/he should be able to comprehend the general meaning of that text. Bearing this premise in mind, a consortium of European universities set about to create a tool that could help learners in their quest to learn content through the medium of a foreign language and facilitate this dual intake by providing elements to aid in scaffolding both content and language learning. The said tool, known as *CLILstore*, is described in the following section.

CLILstore was designed bearing in mind a number of generally agreed principles underlying CLIL (“Content and Language Integrated Learning (CLIL): A European Overview” 2), which can be summarised as follows and which are constant reminders that learning takes place through language:

- Language is used to learn and communicate (receptive and productive skills).
- A CLIL lesson should combine content, communication, cognition, competences, and a sense of community.
- Language is functional and is adapted to the subject.
- Language is approached lexically.
- Grammar remains in the background.
- Learning styles are taken into account in task types.

Thus, the concept of CLIL resembles teaching Languages for Specific Purposes, integrating all four language skills; however, the former does not necessarily include explanations relating to the language itself, but simply involves understanding and being able to produce the foreign language. A CLIL lesson framework could therefore be based on reading or listening comprehension texts and activities associated to the organisation of knowledge and textual processing. The subject specialist need not explain language structures or correct language inaccuracies as it is not his or her task; communication in this context is far more important than fluency or accuracy. Both content and language teachers should combine activities that are appropriate for that particular discipline with language learning exercises in order to balance knowledge intake. The subject specialist

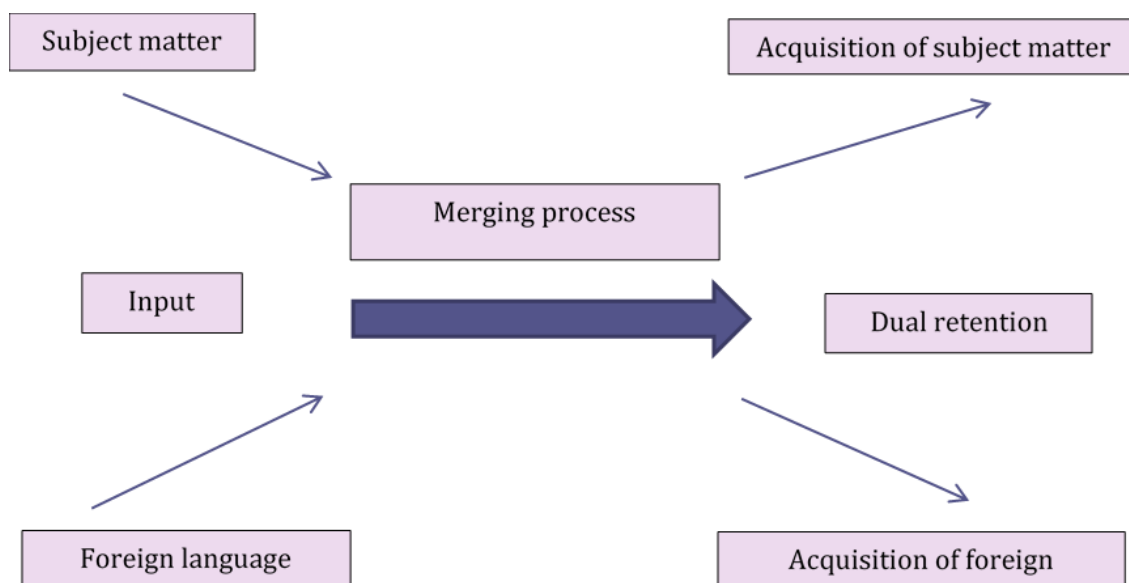
should be able to exploit opportunities to develop language skills as well as improving the acquisition of content, and vice versa (Carrió Pastor and Gimeno Sanz 106).

Although subject and language specialists have to work very closely in designing materials that are appropriate for the CLIL classroom and, subsequently, invest a large amount of time in doing so, we firmly believe that the advantages outweigh the burdens. Very briefly, these advantages can be summarised in the following ideas (Darn 3):

- CLIL introduces a wider cultural context.
- CLIL prepares students for international activities and exchanges.
- CLIL gives access to international certification.
- CLIL improves general and specific language competence.
- CLIL prepares for professional life and provides more job opportunities.
- CLIL develops multilingual interests and attitudes.
- CLIL increases student motivation to learn a second or even a third language.

Several recent studies claim that CLIL is a source of motivation for students (Navarro Pablo & García Jiménez 87; Doiz, Lasagabaster & Sierra 221; Sylvén & Tompson 31) despite the fact that in a CLIL environment what is sought is ideally long-term retention of both the subject matter under study and the foreign language through which that subject is being taught. Students are required to process information relating to and arising from two different channels of input (subject matter + FL), merge the two channels into a single coherent signifier, and then mentally process the resulting combined/dual input into meaningful data. Figure 1 illustrates this mental process (Gimeno Sanz 84).

Figure 1. A CLIL learner's mental process



2. THE CLIL OPEN ONLINE LEARNING PROJECT

In line with this trend, the EU-funded CLIL Open Online Learning (COOL) project (2018-2021) has redeveloped and redesigned *CLILstore*¹, an online authoring tool to support the implementation of CLIL. *CLILstore* is built on 2 complementary tools, that is, *Multidict* and *Wordlink*. Both tools can function as stand-alone resources or within the *CLILstore* system. *Multidict* is a multilingual dictionary interface allowing quick monolingual or bilingual searches in over 100 language combinations. *Wordlink* is an interface that can link most webpages word-by-word to a selection of high quality free online dictionaries; it is the software which facilitates the automatic linking of every word in embedded texts within *CLILstore* learning units and supports learners who wish to easily consult online dictionaries as they read through webpages.

CLILstore's features are particularly enhanced when videos and their transcripts are embedded into the system from one of the many streaming video applications currently available, such as TED Talks or Khan Academy, which offer abundant educational materials in various languages. Because the use of the tool is subject to "CopyLeft" rights, this means that the units and activities created within *CLILstore* become part of an ever-growing repository that is made freely available to the CLIL and language learning community at large, for learners and teachers alike. In addition to briefly describing how the tool works, the last section presents data collected through a survey conducted with experienced teachers from several European countries who attended a training course on the use and implementation of *CLILstore* in secondary education.

Figure 2. *CLILstore* entry page

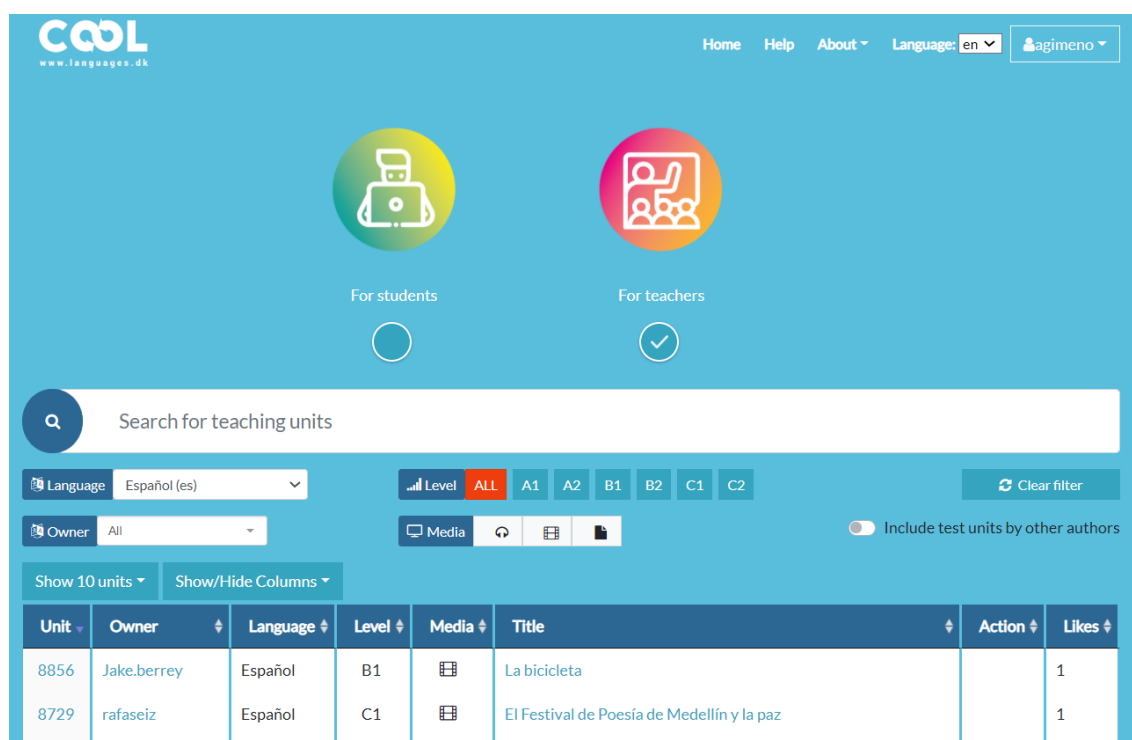


¹ *CLILstore* was first launched as a result of the *Tools for CLIL Teachers* project (Ref. 517543-LLP-1-2011-1-DK-KA2-KA2MP).

2.1. CLILstore, Multidict and Wordlink

CLILstore is a very simple, yet extraordinarily powerful, authoring tool that allows teachers to create materials based on the integration of streaming video embedded from external sources, any wealth of multimedia elements, links to additional sources and uploaded files, as well as a repository of existing materials. The materials that are readily available in *CLILstore* amount to over 4000 units, covering all 6 proficiency levels (A1 to C2) of the Common European Framework of Reference for Languages (CEFR) in 68 different languages, and spread over sundry specialised topics (statistics, history, art, economy, biology, chemistry, etc.).

Figure 3. *CLILstore* menu page

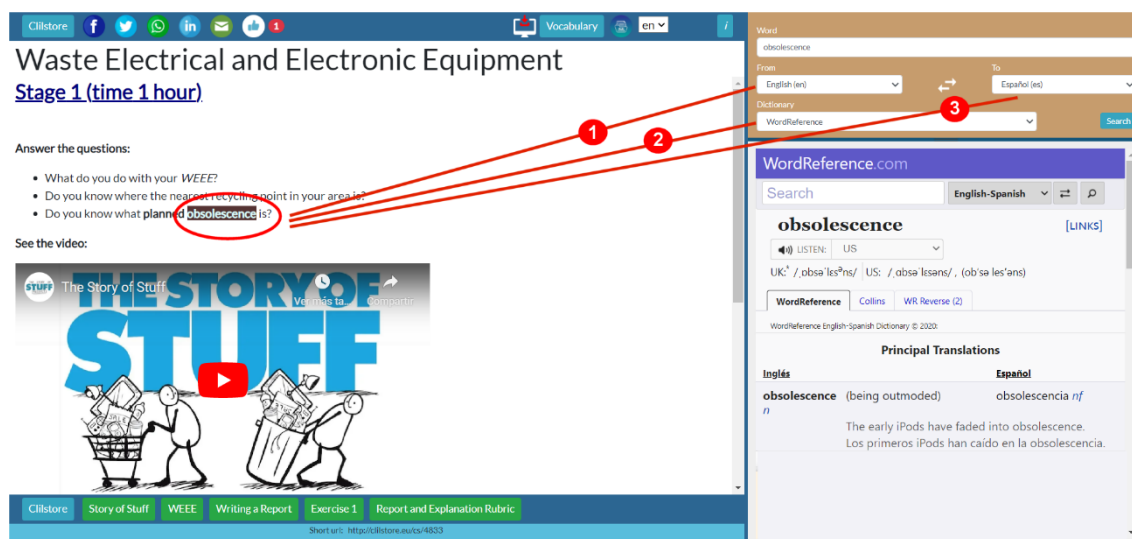


As we can see in Figure 3, the main menu page allows us to select learner or teacher mode, language and level, search for specific units, as well as a number of additional search features such as the type of media included in a unit, author, title or topic of unit, the number of views and likes a unit has attracted, and so forth.

Figure 4 illustrates a view of a unit once it has been selected. It includes an embedded video sequence from *YouTube* and some comprehension questions. By virtue of *Wordlink*, all the words in the unit have become automatically linked to a myriad of online monolingual and bilingual dictionaries in different language pairs. In the image we can see that the word “obsolescence” has been clicked on, triggering the *Multidict* dictionary

interface to appear on the right-hand side of the screen. Here we can see the search criteria for the word being looked up: (1) the source language, (2) our selected dictionary, and (3) the target language for our translation. The author of the unit will have already indicated the source language, so this determines the base language in *Multidict*. The learners can select the language they wish the search term to be translated into, or if they select e.g. English to English they can perform a monolingual consultation. Without having to re-enter the search term, the user can quickly switch between dictionaries using the drop-down menu of available sources (Gimeno, Ó Dónaill and Zygmantaite 12).

Figure 4. The view of a unit in *CLILstore*



2.2. The *Multidict* dictionary interface

In a typical situation where a CLIL student is reading an online article in a foreign language, he or she is very probably going to have to look up the meaning of one or more words. That student will start by opening a new tab, then search for a dictionary, type or paste in the word they need to look up, only to realise that it cannot find the word they are looking for. They end up having to start from scratch, spend time searching the web for another free online dictionary and start the process of typing or copying and pasting the word again. By the time they have finished doing this, and maybe found the translation they were looking for, they may have forgotten the context in which the word was used, so they start reading the text from the beginning in order to find their bearings.

With the *Multidict* function, this is no longer necessary. At the touch of a button students have access to online dictionaries in over 100 languages, which have been gathered into a single search engine. This gives them quick and easy access to the best dictionaries available on the internet. *Multidict* can be used as a standalone regular dictionary by

simply typing in the word to be translated or defined, but it also provides immediate access to a wealth of monolingual and bilingual dictionaries should the first search result not be satisfactory.

When used within *CLILstore*, however, the *Multidict* interface is automatically linked to the text the learner is reading. This means that the hassle of having to type in a word to find its meaning is no longer necessary. Language learners can simply click on the word and the translation will pop up on the right-hand side of the screen (in default mode). If the word cannot be found, then all they will have to do is choose a new dictionary from the drop-down list. This will save them a considerable amount of search time and make the reading experience easier and smoother, whether they are working on a computer or a mobile device.

There are numerous dictionaries to choose from; some are useful to look up general words and others are more appropriate for specialised fields. For example, the IATE database is a very useful tool if one is working with EU-specific terminology, but it also comes in very handy if one is looking for technical words or terms within most vocational subjects. Another example is the *howjsay.com* dictionary, which is an audio dictionary of English pronunciation. This is particularly helpful for beginners or for the user who is unsure of the pronunciation. There is quite an array of dictionaries to choose from although the number varies from language to language.

The types of users who benefit the most from using *CLILstore* are most often users who have some basic knowledge of the target language. This means that at least a B1 reading level is advisable, especially when working with authentic material. The user who needs to look up every second word will not find many advantages. However, a user who is at a B2 level will be able to successfully read and understand a text that normally requires a C1/C2 level and in a considerably shorter amount of time compared to reading the text without *Multidict*. A2 level readers who aspire to move to a B1 level will also benefit from this tool. One of the advantages of *Multidict*, and *CLILstore* alike, is that the reader can be exposed to material at a higher level of difficulty. This pushed input with the added support of *Multidict* aids the reader in the successful completion of a class assignment or task.

3. METHOD

In order to validate *CLILstore* and its integral modules, *Multidict* and *Wordlink*, and to determine a) to which extent training courses focusing on the use of *CLILstore* can become helpful to develop CLIL skills, and b) to which extent *CLILstore* was helpful in achieving

this, project members participated in a European-wide teacher training course and conducted a survey based on pre-course and post-course opinion questionnaires² Thirty practising teachers participated in a two-week teacher training course conducted entirely in English. Only 22 of them completed the pre-course questionnaire and 27 completed the post-course questionnaire. In the following sections, we shall only refer to a small number of questions focussing on the participants' motivations to enrol on the course, their prior knowledge about CLIL, the level of confidence to apply CLIL after taking the course, perceived risk factors preventing them from applying the methodology and, lastly, how useful they thought the *CLILstore* system was in terms of designing CLIL materials for their own subject.

4. PARTICIPANTS

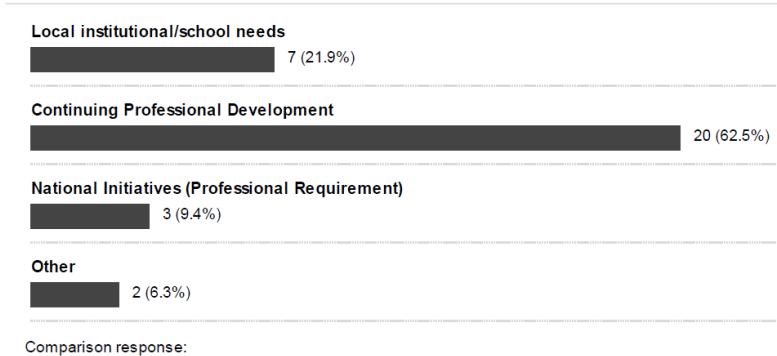
The participants consisted of 30 secondary school teachers (20 female and 10 male) from 9 different European countries³ teaching subjects ranging from Electronics, Telecommunications, Computing and ICT to Geography, History, Science, Music and Art. 77.3% (17) of them were between the 31 to 50 age range, plus 2 (9.1%) between 20 and 30 years of age (9.1%), and 3 (13.6%) aged between 51 and 60. They all held certificates to accredit a B2 level or higher of English proficiency, taught students within the A2+ / B1 range, and were expected to help them achieve a B2 level in their second language. Their computer literacy was mixed: basic (5), intermediate (11), and advanced (6). When asked what their motivations had been to enrol on the course (see Figure 5), 62.5% reported they had done so to broaden their professional development; a further 21.9%, because of local institutional or school needs, and 9.4% owing to a professional requirement in their country. These percentages clearly indicate that it was basically for personal reasons that these teachers were driven to explore new teaching approaches, most likely hoping to improve their professional status.

² Parts of this study were previously published in Gimeno-Sanz, Ana, Ó Dónaill, Caoimhín, and Andersen, Kent. "Supporting content and language integrated learning through technology." *CALL Design: Principles and Practice-Proceedings of the 2014 EUROCALL Conference*, Groningen, Research-publishing.net, 2014, pp. 107-112. Research-publishing.net. doi:10.14705/rpnet.2014.000203.

³ Italy (9); Spain (11); Estonia (3); Austria (2); France (1); Hungary (1); Portugal (1), and Romania (1).

Figure 5. Motivations to join the course

6) What has motivated you to avail of in-service training in CLIL methods?



5. DISCUSSION

In the initial questionnaire, the questions were geared towards disclosing the participant's profile and prior knowledge about CLIL, their readiness to adopt such a methodology and their attitude towards using ICT in their teaching practice. Question 15, "Indicate your level of familiarity with CLIL prior to the course" unveiled a general lack of awareness regarding the theories underlying CLIL and the practicalities involved in adopting this methodology, lack of knowledge as to ICT resources that are available to support the teacher and a tendency to use practices firmly grounded on a teacher-centred approach, as reflected in Table 1.

Table 1. Level of familiarity with CLIL prior to the course.

15) Indicate your level of familiarity with CLIL prior to the course

	5 High	4	3	2	1 Low	Responses	Average Score
Stating learning outcomes for language and subject	5 (22.73%)	4 (18.18%)	4 (18.18%)	1 (4.55%)	8 (36.36%)	22	3.14 / 5(62.80%)
The 4 Cs of CLIL	3 (13.64%)	3 (13.64%)	5 (22.73%)	2 (9.09%)	9 (40.91%)	22	3.50 / 5(70.00%)
The importance of multimodality	3 (13.64%)	4 (18.18%)	7 (31.82%)	5 (22.73%)	3 (13.64%)	22	3.05 / 5(61.00%)
Teacher-centred vs Student-centred learning	5 (22.73%)	6 (27.27%)	4 (18.18%)	3 (13.64%)	4 (18.18%)	22	2.77 / 5(55.40%)
Use of technology to adapt language input	1 (4.55%)	2 (9.09%)	5 (22.73%)	8 (36.36%)	6 (27.27%)	22	3.73 / 5(74.60%)
Use of technology for Scaffolding	2 (9.09%)	4 (18.18%)	3 (13.64%)	8 (36.36%)	5 (22.73%)	22	3.45 / 5(69.00%)
The importance of pushed input & pushed output	2 (9.09%)	6 (27.27%)	6 (27.27%)	5 (22.73%)	3 (13.64%)	22	3.05 / 5(61.00%)
							3.24 / 5 (64.83%)

The final survey intended to collect data regarding their level of confidence in applying a number of CLIL attributes in their teaching, the degree to which they thought CLIL relies

on ICT, whether they perceived any risk factors that could prevent them from implementing CLIL in their teaching practice, and their perception of learner-centred versus teacher-centred approaches, after having completed the two-week course.

Regarding their opinion of the CLIL concept in general after completing the course, the entire class was favourable of applying this methodology in their teaching. The following are a few comments that we think are worth mentioning because they summarise the overall impression:

- *The CLIL methodology is useful to improve the students' motivation in learning because it involves the use of different means of communication and it integrates a wide variety of pedagogical methodologies. The lessons built in this way are more interesting for students.*
- *[CLIL] is a new methodology based on multimodality and scaffolding, which is very useful.*
- *In my opinion CLIL is a good method to transfer content and language, even if you have to create all your lessons and it is a big job.*
- *I think CLIL is a very ambitious concept. If it works, it is perfect for the students but I think it takes a lot of time for CLIL to work with students, and it takes a lot of time for teachers to prepare lessons.*

From these comments we can elicit several conclusions that were, in general, common to the whole group: a) teachers perceive CLIL as a means of motivation for students because it involves using multiple approaches to teaching; b) it assimilates multimodality in learning, and c) it caters for a variety of learning styles. As can be seen, the main drawback is related to the amount of extra work and time that must be invested in preparing suitable lessons in order to adapt their subject matter to the CLIL methodology.

Regarding the degree of confidence in applying CLIL after taking the course (Q2), 48.15% state that they are *confident* and 18.52% state that they are *very confident* in developing learning outcomes for both language and subject matter. If we consider the sum of these two statements, over 65% of the participants perceive CLIL as an optimal methodology to teach both content and language. The participants' confidence to provide multimodal input and distributing it evenly across their CLIL units increased to levels of *very confident* (48.15%) and *confident* (40.74%), adding up to nearly 90%.

Table 2. Level of confidence in applying CLIL attributes

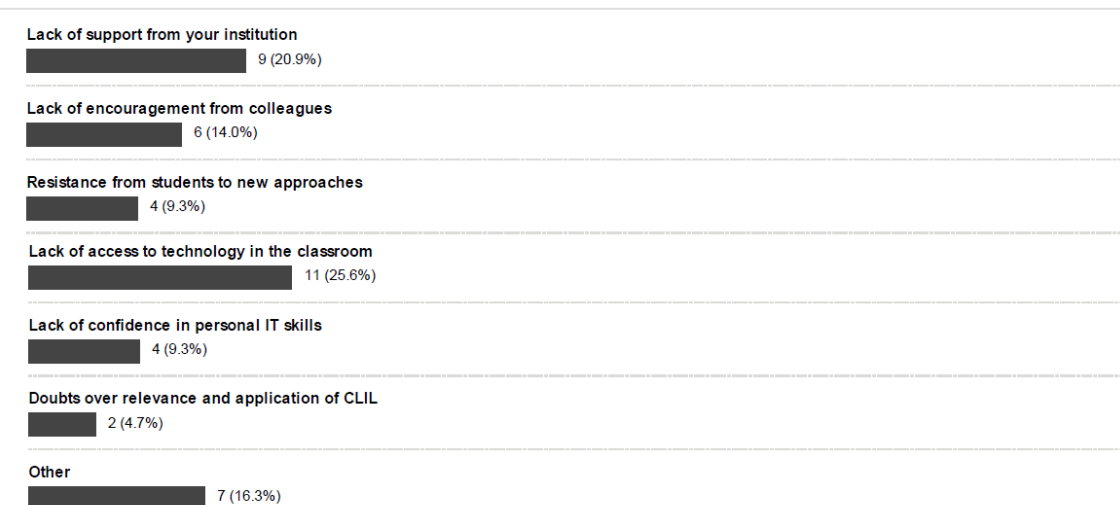
2) Now that you have had the opportunity to put CLIL theories into practice, please indicate your level of confidence in applying the following CLIL attributes in your teaching.

	5 Very Confident	4	3	2	1 Not Confident	Responses	Average Score
Stating learning outcomes for both language and subject	5 (18.52%)	13 (48.15%)	5 (18.52%)	4 (14.81%)	0 (0.00%)	27	2.30 / 5(46.00%)
The 4 Cs of CLIL	8 (29.63%)	12 (44.44%)	7 (25.93%)	0 (0.00%)	0 (0.00%)	27	1.96 / 5(39.20%)
The importance of multimodality	13 (48.15%)	11 (40.74%)	2 (7.41%)	1 (3.70%)	0 (0.00%)	27	1.67 / 5(33.40%)
Teacher-centred vs Student-centred learning	9 (33.33%)	14 (51.85%)	4 (14.81%)	0 (0.00%)	0 (0.00%)	27	1.81 / 5(36.20%)
Use of technology to adapt language input	7 (25.93%)	14 (51.85%)	5 (18.52%)	1 (3.70%)	0 (0.00%)	27	2.00 / 5(40.00%)
							1.96 / 5(39.20%)
The importance of pushed input & pushed output	4 (14.81%)	16 (59.26%)	4 (14.81%)	1 (3.70%)	2 (7.41%)	27	2.30 / 5(46.00%)
							2.00 / 5 (40.00%)

The teachers were also wary of a number of risk factors that could prevent them from integrating what they had learnt during the course into their teaching practice. These are listed in Figure 6. As we can see, there is no one solid reason but several that could impede them from integrating a CLIL teaching model within their schools. 25.6% (11) saw the lack of access to technology in the classroom as the main impediment, followed by 20.9% (9) who claimed that lack of support from their institutions could very well hinder their intention to adopt a CLIL methodology. Six of the respondents (14%) regretted not receiving encouragement from colleagues to try new methods in the classroom, as well as 9.3% (4) who feared that students would be reluctant should they decide to adopt a new teaching approach. All of these reasons refer to external challenges being perceived as a threat but another 4 responses (9.3%) reported a personal reason, that is, lack of confidence in their personal IT skills, which is perceived as an indispensable quality to have when embracing a CLIL methodology.

Figure 6. Perceived risk factors

12) Will any of the following risk factors prevent you from integrating what you have learnt during this course into your teaching practice?



Some of the respondents elaborated on their answers that, on the whole, can be summarised in the following explanation where we can see that teachers are under pressure to integrate innovative teaching methods with scarce institutional support and institutions relying on their staff members' own initiatives and motivations. Schools, quite probably also receive pressure from local or national educational authorities, which could in turn be responding to common European Union directives (such as the European Commission Communication No. 449 on Promoting Language Learning and Linguistic Diversity mentioned above).

Institution are sending letters announcing new methods to implement but they do not provide practical training and clear target to reach. So I am here just because I heard about CLIL and I wanted to know more about it. But I think a project like CLIL cannot be left on personal initiative.

Self-confidence in being able to incline the balance towards student-centred learning rather than teacher-centred learning was another of the attributes where the course had helped participants gain assertiveness: *very confident* (33.33%) and *confident* (51.85%), adding up to a total of 85% of the participants. Additionally, 77.8% of the respondents claimed that the introductory course on CLIL and the use of *CLILstore* had changed their views on teacher-centred versus learner-centred learning and provided the following explanations:

- *Students should be more involved in their learning.*
- *Yes, I will try to apply more student-oriented education.*

- *In Italy the widespread methodology is teacher-centred; so I have learnt different ways of teaching and, in the end, a dramatic change in the way of thinking and planning lessons.*
- *The tools that I have learnt are very interesting, but it is necessary employ a lot of time to build the lesson, because in my case there are very few existing materials. And it is a huge effort to create the material in English.*
- *Using these tools changed my views on learning-centered approaches.*

As we can see, in a number of cases, the course encouraged teachers to change their focus from teaching to learning and their will to incorporate methods to support the learner and increase their involvement in the process despite the amount of work that creating *ad-hoc* materials may imply in areas where there are fewer ready-made resources available.

Regarding how reliant CLIL is on ICT, again the views of the respondents coincided considerably. 29.63% stated that CLIL relied on ICT *very strongly* and 55.56%, *strongly*, adding up to over 85% of the group. 11.11% were *neutral*, and a mere 3.70% *disagreed* entirely and thought that CLIL could be put into practice independently of ICT. One of the respondents commented that CLIL “is not NECESSARILY reliant [on ICT]. There are lots of things that can be done without it, especially *Wordlink* as it just helps to understand a text, it doesn’t teach understanding skills.”

When asked about the usefulness of the *CLILstore* system to design units for CLIL in their own subject, nearly 85% of the respondents rated it as *high* or *very high*. *Multidict* and *Wordlink* were also highly regarded, with just over 85% and 70% of the participants, respectively, believing these tools met their needs in terms of supporting CLIL.

Table 3. Extent to which training in using Clilstore (Multidict and Wordlink) met teachers’ needs

3) Rate the extent to which training in the following online tools for supporting CLIL has met your needs.

	5 High	4	3	2	1 Low	Responses	Average Score
Multidict	15 (55.56%)	8 (29.63%)	4 (14.81%)	0 (0.00%)	0 (0.00%)	27	1.59 / 5(31.80%)
Wordlink	14 (51.85%)	5 (18.52%)	8 (29.63%)	0 (0.00%)	0 (0.00%)	27	1.78 / 5(35.60%)
Clilstore	9 (33.33%)	13 (48.15%)	3 (11.11%)	2 (7.41%)	0 (0.00%)	27	1.93 / 5(38.60%)

One of the general remarks –which can be summarised in the following opinion: “It is necessary to have a global planning to state the main principles and practice of CLIL in Europe. It is not a good idea that each teacher uses CLIL as they consider the best way”– points, in our view, to one of the key factors that can cause teachers to hesitate to put CLIL

into practice, i.e., the fact that subject specialists need well-developed methodological guidelines to support the implementation of CLIL in the classroom and the backing of language specialists to provide support in terms of foreign language learning.

6. CONCLUSIONS

CLILstore, like any other technology or resource used needs to address a particular pedagogical need. Considering that the basic elements of a CLIL lesson include exposure to input, meaning focussed processing, form focussed processing, output production and the use of strategies, *CLILstore* has been designed to facilitate this type of teaching and learning; however, factors such as learning environment, learner need, curricular demands and desired learning outcomes must also be taken into account (Ó Dónaill 21).

Evidence drawn from the post teacher training course survey leads us to believe that a) teachers are willing to adopt CLIL in their classes and to collaborate with language specialists to put this dual-focus methodology into practice; and b) *CLILstore* is perceived as a useful tool to create, publish and deliver learning materials that aid in conducting dual-focussed teaching by supporting content learning as well as foreign language learning.

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CLIL and e-learning environments: The role of *Google My Maps* and students' written performance in Classical History

El enfoque AICLE y los entornos de aprendizaje en línea: El papel de Google My Maps y la producción escrita de los estudiantes en Historia Antigua

Lucía Bellés-Calvera
Universitat Jaume I / IULMA
lucia.belles@uji.es

Begoña Bellés-Fortuño
Universitat Jaume I / IULMA
bbelles@uji.es

Abstract

Education in the 21st century has moved towards digital learning to offer high quality programmes that meet the technological and communicative demands of today's society. Well-known approaches such as Content and Language Integrated Learning (CLIL) and English as a Medium of Instruction (EMI) may benefit from this new reality by addressing linguistic and cognitive challenges in written discourse. This paper examines the written performance of forty first-year undergraduate students coursing a CLIL module in History of the Classical World at a Spanish university. By means of *Google My Maps*, participants were expected to create a custom map describing five Roman vestiges of their choice. The findings indicate that students' L1 negative transfer may lead to grammatical and lexical inaccuracy. *Google My Maps* has proved to be a valid resource for the retention of History contents as well as for the acquisition of a foreign language in online learning environments.

Key words: CLIL, higher education, written competence, Open Educational Resources (OERs)

Resumen

La educación en el siglo XXI ha introducido el aprendizaje digital en programas de alta calidad para satisfacer las demandas tecnológicas y comunicativas de la sociedad actual. Enfoques conocidos como el Aprendizaje Integrado de Contenido y Lenguaje (AICLE) y el Inglés como Medio de Instrucción (IME) pueden beneficiarse de esta nueva realidad al abordar los desafíos lingüísticos y cognitivos del discurso escrito. Este trabajo examina la producción escrita de cuarenta y dos estudiantes de primer año de grado que cursan un módulo de AICLE en Historia del Mundo Clásico en una universidad española. Por medio de *Google My Maps* se espera que los participantes creen un mapa personalizado que describa los cinco vestigios romanos según su elección. Los resultados indican que la transferencia negativa de la L1 puede llevar a inexactitudes gramaticales y léxicas en la L2. *Google My Maps* ha demostrado ser un recurso válido para la retención de contenidos en Historia, así como para la adquisición de un idioma extranjero en entornos de aprendizaje en línea.

Palabras clave: AICLE, educación universitaria, competencia escrita, Recursos Educativos Abiertos (REO).

1. INTRODUCTION

Being able to master two foreign languages has been one of the main linguistic premises set by the European Commission (European Council 3). Significant efforts have been made to provide younger generations with the necessary professional and communicative skills that are required in today's society (Bellés-Calvera and Martínez-Hernández 4010). Evidence may be found in the implementation of the Content and Language Integrated Learning (CLIL) approach, where disciplinary instruction occurs in a foreign language (Coyle et al. 1), with English being the preferred vehicular language in different countries (Mele-Marrero 121; Morgado and Coelho 125). Nonetheless, the implementation of these programmes has not met the expected linguistic outcomes, probably due to a low exposure to the target language outside the learning environment (Lasagabaster and Sierra 372; Agustín Llach and Jiménez Catalan 99).

A renewed focus that integrates the implementation of Open Educational Resources (OERs) in the classroom would improve the efficiency of the CLIL approach (Lawrence and Tar 79; Scott and Beadle 3, 19-21; Chiu et al. E106-E107). This new scenario could be a

way to enrich and expand the learning opportunities in the future, especially when it comes to the development of writing skills in the English language. Not only does the use of OERs support language acquisition by maximizing exposure to the target language in face-to-face and digital learning environments, but it also contributes to making CLIL initiatives more appealing.

Past research in the field of foreign language acquisition (FLA) has reported the beneficial effects on receptive (i.e. reading and listening) rather than productive skills (i.e. speaking and writing), which are essential in academic contexts (Whittaker et al. 101). The use of technological resources in the development of speaking skills has spread rapidly in EFL learning environments. According to some studies, the implementation of OERs such as *Voki*, *Ello*, *Voxpop* has strengthened the learning of different speaking areas in the English language, such as fluency, pronunciation, intonation and interaction (Bellés-Calvera and Bellés-Fortuño, *Teaching English pronunciation with OERs: The case of Voki* 57; Moya-Pachón 85). Recent studies have also been concerned with the impact of OERs on the written competence of those students involved in CLIL practices, including *Blogging*, *Pixton*, *Bombay TV* and *Twitter*, among others (Montaner-Villalba, *Written Production in EFL through blogging and cooperative learning at A-level* 97; Bellés-Calvera and Bellés-Fortuño, *Written corrective feedback with online tools in the Medicine classroom: Bombay TV* 106; Cabrera Solano et al. 53; Hernández-Nanclares and Jimenez-Muñoz 259).

This paper presents the results obtained in a CLIL learning environment as regards the use of *Google My Maps* to produce written discourse in the English language. The tool was introduced to a group of first-year undergraduate History students coursing a content-specific module called *History of the Classical World*. The purpose of the current study is to examine written language accuracy as well as to determine the role of OERs as a pedagogical tool in the learning of curricular and linguistic knowledge.

2. LITERATURE REVIEW

In the last decades, the command of more than one language has become a priority worldwide. This new “linguistic world order” (Maurais and Morris 1) has posed some challenges in the field of education as it responds to demographic, economic, historical, political, intellectual and entertainment factors (McDougald 10; Crystal, 7) that have shaped new practices in bi-/multilingual education. In Europe, these programmes spread at all educational levels through the CLIL approach, so that younger generations become

competitive professionals and communicators. Innovations in this field have moved towards digital learning, which relies on the incorporation of OERs.

Previous research in technology-enhanced CLIL classrooms has explored the features of these online sources. Authors such as Galitsyna and Yesenina (4-5) identified in their study the main principles of CLIL technology for engineering higher education institutions, which call for opportunities to authentic language sources usage, content and language teachers' interaction, active learner support, and OERs usage for the learning of disciplinary content. Other scholars highlight their role in the teaching process given that these pedagogical tools enhance the adoption of scaffolding strategies and serve as complementary tools in traditional instructional practices (Fageeh 420; Conole and Alevizou 41). Evidence is found in a study conducted in Spain dealing with the teaching of Music in secondary education (Bellés-Calvera 109). Within this project, addressed to 1st ESO students, OERs such as *YouTube*, *PowerPoint presentations* and *musicmap.info* were employed to facilitate comprehension and disseminate curricular content.

Bearing these aspects in mind, OERs can bring new possibilities into the CLIL classroom, where motivation is pivotal (Abdollahpour and Maleki 109; Coyle 11). Therefore, it is essential to develop appropriate educational strategies that do not only result in enjoyable learning (Dörnyei 29, 43), but also in the acquisition of skills that adjust to the needs of CLIL learners. Through the performance of individual and collaborative tasks and games, CLIL participants have the opportunity to gain abilities that will be helpful throughout their academic and professional careers (Pogrow 64), namely digital literacy, critical thinking, problem-solving, cultural, social and autonomous competences, among others (Abentao et al. 1).

Regarding the teaching and learning of languages, OERs have proven their potential to support effective CLIL initiatives, particularly when it comes to the progress of receptive skills (i.e. reading and listening) (Prieto-Arranz et al. 123). As reported in studies conducted in Taiwan and Turkey, students improved their reading comprehension and developed positive attitudes towards digital learning environments (Huang and Hong 175; Simsek 200). The integration of OERs in the classroom setting has also entailed other benefits in the learning of reading skills related to autonomy and individual needs (Abdallaoui Maan 21). As for listening skills, videos and podcasts are considered some of the best materials in foreign language learning due to exposure to authentic language and

the use of additional visual aids such as body language and podcasts (González Otero 89; Oddone 105).

Experiments at tertiary education revealed that the use of online software (e.g. *Hot Potatoes* and Moodle glossary) has favoured the retention of specific terminology (Perea-Barberá and Bocanegra-Valle 129; Raigón Rodríguez and Gómez Parra 103). Recent research in Geography lessons has stressed the functionality of online resources like *Kahoot* in vocabulary acquisition since the language level can be adapted to students' needs (Montaner-Villalba, *The use of KAHOOT in the EFL classroom within the CLIL approach* 167). These linguistic areas can also be promoted through digital storytelling and the use of narrated pictures by means of *Photostory 3* and *PowerPoint* presentations, among others (Alcantud-Díaz et al. 15, 19).

Contributions of new technologies in educational programmes can be observed in the development of productive skills (i.e. speaking and writing), which are highly demanded in academic and professional contexts (Whittaker et al. 343). For instance, the pronunciation area was examined by Bellés-Calvera and Bellés-Fortuño (*Teaching English pronunciation with OERs: The case of Voki* 57) through the use of *Voki*, a platform with a set of audiovisual aids that boosts students' motivation. The findings revealed that learners were satisfied with the use of this tool in regular sessions as they could improve their English pronunciation. Despite all the aforementioned benefits in technology-enhanced CLIL practices, further research needs to be conducted with regard to writing skills (Bellés-Calvera and Bellés Fortuño, *Written corrective feedback with online tools in the Medicine classroom: Bombay TV* 117).

a. Written competence

Writing is a productive skill based on the creation and organisation of ideas to convey meaning. Due to the internationalisation of higher education, the ability to write texts that integrate both content and a foreign language has become a priority, especially because it "is the most widespread form of recording CLIL students' knowledge" (Whittaker et al. 343).

When supported by online tools, grammar and lexical complexity have been two of the main concerns. Evidence may be found in the creation of didactic materials through *Pixton*, a tool introduced to improve their grammatical and lexical knowledge in the target language that resulted in enjoyable learning experiences (Cabrera Solano et al. 53). The efficiency of mobile learning in CLIL education has been explored in Montaner-Villalba's

research (*Written Production in EFL through blogging and cooperative learning at A-level 97, Critical Thinking and Written Production in the EFL classroom through Blogging 167*), more specifically the role of *Blogging* and *Twitter* have in the improvement of students' critical thinking summarizing skills.

Other elements that have been of interest have to do with language accuracy, creativity and corrective feedback. These issues were considered by Bellés-Calvera and Bellés-Fortuño (*Written corrective feedback with online tools in the Medicine classroom: Bombay TV 106*) in their study by British spelling analysing the data gathered from the video scripts on *Bombay TV* produced by medical students adding subtitles to short videos. The results allowed describing the lexico-grammatical errors committed by medical students through a developed proposal for the assessment of students' written outcomes.

b. Objectives

Based on previous literature, this paper sets out to investigate the features of students' written performance as well as the potential of *Google My Maps* as a tool that strengthens the production of written discourse in the CLIL classroom. To achieve this goal, the current study focuses on the following research questions (RQ):

1. What types of writing errors can be spotted in first-year tertiary students in a History CLIL classroom in the production of *Google My Maps* texts?
2. Is there any significant difference between male and female students' written performance in *Google My Maps* texts?
3. What benefits can the use of *Google My Maps* entail in a CLIL History classroom?

The areas of the methodological framework that have been considered are outlined in the next section. The findings reveal that face-to-face, blended and distance learning modes can benefit from the integration of OERs as they can adapt to the demands of CLIL participants.

3. METHODOLOGY

The methodological approach employed in this study is provided below. A thorough description of the participants, the tools, the procedure and the corpus of the study will be revised for the analysis of first-year tertiary students' written competence in a CLIL learning environment.

a. Context

Following the linguistic policies devised by the European Commission, several bilingual and multilingual programmes are offered in higher education. The module selected for the study was delivered at a Spanish university located in a bilingual region where English has been chosen as a vehicular language for CLIL practices. Within this CLIL programme, Spanish, Catalan and English were employed as languages of instruction, but their presence in the classroom setting differed to a large extent. Spanish and Catalan were the means of communication in the theoretical component of the subject. English, however, was the vehicular language in CLIL seminars. It is our intention here to address this issue in our study.

b. The sample

Concerning the sample, a female lecturer and forty undergraduate students, aged between 18 and 37 years old, took part in this research. The group consisted of 19 female and 21 male students coursing *History of the Classical World*, a subject taught during the second semester in the History and Heritage degree.

Table 1. Participants

	History of the classical world			
	Year	Male	Female	Age
Teachers	1st	-	1	26
Students		21	19	18-37

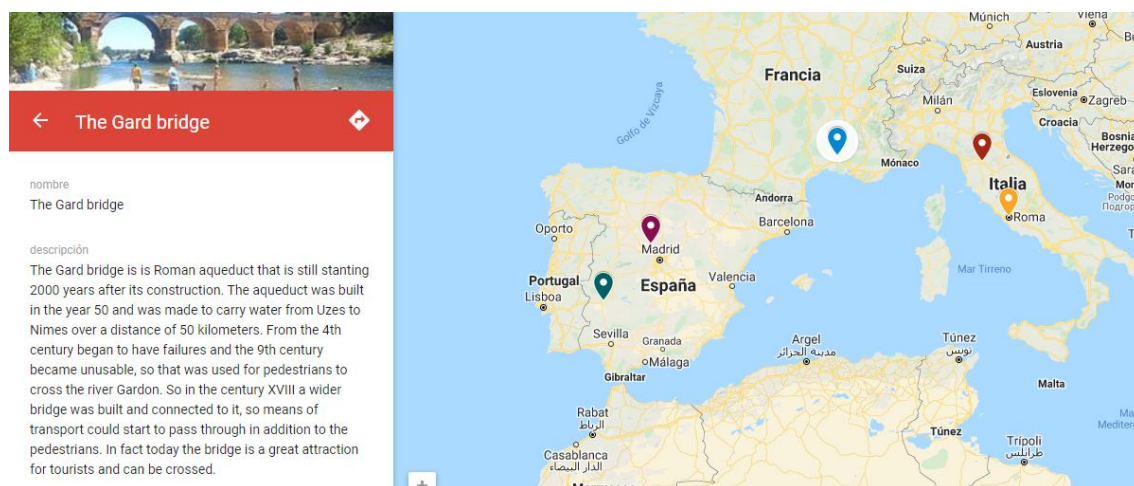
The subjects were mainly from the Valencian Community and thus mastered Spanish and Catalan at a native-speaker level. In addition, a reduced number of students also had Romanian as their mother tongue. However, differences arise when it comes to the command of the English language. Due to the basic training nature of the course, no previous English qualifications were required before admission, thereby having a group with heterogeneous proficiency skills. The sample was, thus, selected consciously in order to examine the effect of OERs in the development of learners' written proficiency in CLIL settings.

c. The tool: *Google My Maps*

Google My Maps is a resource that offers a wide range of practical applications in the classroom (Duffy 1-2). With this user-friendly tool, which allows for the creation of

interactive and customised maps, multimodality plays a significant role. Content can be displayed with visual, audiovisual and textual aids (e.g. titles, videos, pictures and descriptions). Other features have to do with the usage of different markers, lines, shapes, colours, icons, labels and layers, which can be adapted to the geographical locations of your choice as well as enhance the comprehension and interpretation of content.

Figure 1. *Google My Maps* screenshot



It also serves to establish curricular and cross-curricular connections in modules belonging to different domains, such as Literature, Biology, Maths and History. What is more, teachers and learners can benefit from collaborative and individual learning strategies, all of them having an impact in the production of written discourse. Within the CLIL classroom, *Google My Maps* can be perceived as an innovative resource that is useful for the presentation of lesson materials as well as for the provision of immediate corrective feedback. The fact that this device enables the design of trip itineraries is a good asset that should be considered in the CLIL classroom since it nurtures creative communicative practices.

d. Research materials and procedure

As the purpose of this study was to analyse students' written outcomes in the English language when supported by OERs, CLIL learners had to complete a written assignment individually with *Google My Maps*. The integration of this tool was totally new to most of them since they did not know how to exploit its full pedagogical potential in and beyond the classroom. Rather, students were familiar with traditional methodologies that have been largely used for the production and submission of written tasks. All the necessary

steps and strategies that were meant to be implemented in their written performance were explained in detail in online learning sessions through narrated *PowerPoint* presentations, tutorial videos and written guidelines, all of them available on the virtual classroom of the course.

The corpus used in this paper consists of 42 multimodal maps based on a written assignment. The links for the maps were automatically generated with the resource mentioned and sent to their CLIL teacher, gathering a total number of 210 pieces of text. Students had to write about archaeological buildings, roads, sculptures or any other vestiges from ancient Rome that they found intriguing or had not been covered in class. They also had the opportunity to include data related to historical facts, curiosities, and their personal opinions.

To this end, the topics and instructions given were available on the Virtual platform of the course in different formats and media. Narrated *PowerPoint* presentations and glossaries were uploaded on the virtual classroom of the module so that participants got familiar with some of the main architectural structures Romans left behind. Support was also given by means of glossaries, videos, e-mails, articles and links to external sources. In so doing, scaffolding learning strategies were employed to promote autonomous learning as well as summary and thinking skills, which are pivotal in written discourse.

e. Data analysis

To obtain these quantitative data, the various activities carried out by the students were scored using numerical marks. These scores, according to the Spanish educational system, run from 1 to 10, where 1–4 is a fail, while 5–10 is a pass. The numerical marks were used to score the different variables that made up the final written product: content of the text, organisation and structure of the text, grammar, vocabulary and spelling.

The written productions were reviewed to detect errors made by the participants at a linguistic and cognitive level. As observed in Table 2 below, the criteria for the assessment of students' written performance were based on: content (acquisition, development), language (grammar and vocabulary), creativity and structure as expected in a CLIL practice.

Table 2. Assessment criteria: written outcomes

Criteria	Needs improvement	Satisfactory	Good	Excellent
CONTENT (40%)				
Content acquisition	Most	Some	Most	All the

	architectural and sculptural Roman remains described in the writing have been covered in class.	architectural and sculptural Roman remains described in the writing have been covered in class.	architectural and sculptural Roman remains described in the writing have not been covered in class.	architectural and sculptural Roman remains described in the writing have not been covered in class.
Content development	Little or no original thinking is present in the writing. Most ideas are vague and some of the required questions are missing.	Some original thinking and basic summary skills are present in the writing. Some ideas and required questions are developed originally, but some others are missing.	Original thinking and good summary skills are present in the writing. The main ideas and required questions are supported with quality evidence.	Original thinking and excellent summary writing skills, All the ideas and required questions are supported with high-quality evidence.
LANGUAGE (40%)				
Grammar	Many spelling, punctuation, and grammatical errors are present.	Some spelling, punctuation, and grammatical errors are present.	Most spelling, punctuation, and grammatical errors are not present in text, which may contain some minor mistakes.	Spelling, punctuation, and grammatical errors are not present in the text.
Vocabulary	Use of historical terminology related to ancient Rome is limited and/or inappropriate in most contexts.	Use of historical terminology related to ancient Rome is limited and/or inappropriate in some contexts.	Use of historical terminology related to ancient Rome is vast and/or appropriate in most contexts.	Use of historical terminology related to ancient Rome is vast and appropriate in all contexts.
STRUCTURE (10%)	Writing shows some coherence, but ideas lack unity and logical	Writing is coherent and some ideas are logically organised.	Writing is coherent and ideas are logically organised.	Writing is coherent and ideas are logically organised

	organisation. Serious errors and generally is an unorganised format and information.	Some points may not be contextually clear due to the use and/or omission of transitions throughout the production.	Most points are contextually clear due to the use of transitions between ideas and paragraphs throughout the production.	and explained in detail. All the points are contextually clear due to the use of transitions between ideas and paragraphs throughout the production.
CREATIVITY (10%)	No use of visual aids. Personal opinion is not given.	Use of some aids (pictures or icons). Personal opinion is not included.	Use of visual aids (pictures, icons). Personal opinion is somehow included	Use of a number of visual aids (pictures, icons). Personal opinion is included.

At a linguistic level, feedback was provided by means of comments. Table 3 indicates the grammatical and lexical errors that have been examined in this research as these are usually spotted in foreign language written discourse.

Table 3. Lexico-grammatical errors

LANGUAGE	
Lexical errors	Grammatical Errors
Unnecessary additions	Subject-verb agreement
Omission	Singular/plural forms
Wrong word choice	Verb Tense
Wrong word form	Unclear utterances
Lexical transfer	Wrong order
Spelling	Punctuation

Lexical errors comprise unnecessary additions/repetitions, omission (e.g. nouns, pronouns, prepositions, articles or utterances), wrong word choice (e.g. nouns, pronouns, verbs, prepositions, adjectives, adverbs or collocations), wrong word form, lexical transfer (e.g. calques, coinages, borrowings or lexical inventions) and spelling. The latter were listed based on Lastres-López and Manalastas' taxonomy of spelling mistakes (125) (see Table 4). On the other hand, grammatical errors involve singular/plural agreement, verb tense, unclear utterances, wrong order and punctuation.

Table 4. Classification of spelling errors (Lastres-López and Manalastas 125)

Type of spelling error	
Phonologically-related errors	Homophones
	Minimal pair
Absence or presence of a grapheme	Double consonant not doubles
	Absence of vowel
	Addition of consonant
	Addition of vowel
	Single consonant doubled
Incorrect choice of grapheme	Incorrect vowel
	Incorrect consonant
Splitting of the word	
Other	

The number of lexical and grammatical errors made by the participants was spotted and proof-handled based on the categories abovementioned. Gender variables were considered to determine if there exist substantial differences between males and females who use English as a vehicular language in their written outcomes.

4. RESULTS AND DISCUSSION

The manual analysis of the 42 maps containing 210 short texts has been pivotal to detect and classify learners' weaknesses in writing. The findings obtained in the present study are meant to describe and compare the written outcomes produced by History undergraduate students with the use of *Google My Maps* software. Apart from these

linguistic elements, additional content, creative and organisational issues have been observed and discussed below.

a. Lexico-grammatical errors

History students' written performance was characterised by grammar and vocabulary inconsistencies (See Table 5). Results indicate that the number of written errors is unequally distributed since a wide variety of them can be found at a lexical level with meaningful gender-based differences.

Turning now to the differences between male and female individuals, our data reveal that the most common type of lexical errors is that of spelling. Out of a total of 534 errors, 328 inconsistencies correspond to male participants, a mean of around 15.62 errors per person. The remaining 206 lexical errors were found in females' writings, with an average of roughly 10.84 errors per participant.

Table 5. Results from students' writings: Lexico-grammatical errors

Lexical errors	Number of lexical errors			Number of lexical errors per person				
				Mean		Frequency		Difference per gender (%)
	M	F	Total	M	F	% M*	% F*	
Unnecessary additions	21	14	35	1.00	0.74	57.58%	42.42%	-15.15%
Omission	50	38	88	2.38	2.00	54.35%	45.65%	-8.70%
Wrong word choice	60	33	93	2.86	1.74	62.19%	37.81%	-24.39%
Wrong word form	22	11	33	1.05	0.58	64.41%	35.59%	-28.81%
Lexical transfer	48	34	82	2.29	1.79	56.09%	43.91%	-12.18%
Spelling	127	76	203	6.05	4.00	60.19%	39.81%	-20.38%
Total	328	206	534	15.62	10.84	59.03 %	40.97%	-18.05%
Grammatical	Number of			Number of grammatical errors per person				

errors	grammatical errors			Mean		Frequency		Difference per gender (%)
	M	F	Total	M	F	% M*	% F*	
Subject-verb agreement	16	17	33	0.76	0.89	45.99%	54.01%	8.02%
Sing./Plural forms	12	4	16	0.57	0.21	73.08%	26.92%	-46.15%
Verb Tense	21	9	30	1.00	0.47	67.86%	32.14%	-35.71%
Unclear utterances	6	8	14	0.29	0.42	40.43%	59.57%	19.15%
Word order	14	15	29	0.67	0.79	45.78%	54.22%	8.43%
Punctuation	13	13	26	0.62	0.68	47.50%	52.50%	5.00%
Total	82	66	148	3.90	3.47	52.92%	47.08%	-5.84%

*Error rate by category over the total per person

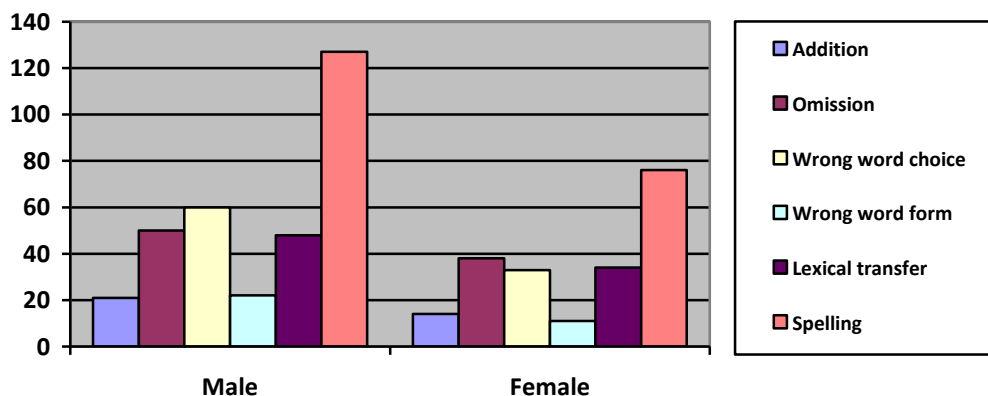
As summarised in Table 5 above, grammatical inaccuracies were noticeably lower for both genders as only 148 errors could be recognised in students' interactive maps. This distribution of errors shows that male university students failed to use verb tenses and singular/plural forms, whereas errors in females' multimodal writings referred to unclear utterances, word order and subject-verb agreement. A closer look at these results indicates that the average of grammatical errors was 3.9 errors per male individual, whilst it was 3.47 errors per female individual. Overall, it is female participants who seem to have a better command of their writing abilities in the English language, particularly at a lexical level.

i. Lexical errors

Figure 3 illustrates that spelling is the most common lexical error found in male learners' maps, followed by wrong word choice, omission and lexical transfer, these latter being quite similar in terms of frequency. Similar trends can be observed in females' written outcomes, which are characterised by a high number of spelling mistakes. Unlike male written texts, the omission of nouns, articles and utterances comes in the second place, whereas the prevalence of negative transfers from their mother tongue (L1) and wrong word choices remains nearly the same. As to the misuse of word form and addition

instances, it is worth mentioning that these categories are not as usual as the aforementioned elements. Therefore, it can be concluded that the greatest difficulties for the subjects –particularly males– are related to spelling, wrong word choice and omission.

Figure 2. Lexical errors graph



Spelling

Spelling errors have been identified as the most remarkable written errors in CLIL discourse, especially when supported by *Google My Maps*. Non-native speakers may find it difficult to learn orthographical rules in the English language due to the lack of correspondence between writing and speech between graphemes and phonemes (van Gelderen 15).

Although both males' and females' written performance is characterised by spelling mistakes in the target language, it should be noted that out of the 203 spelling errors identified in the CLIL classroom, 127 are made by male students whilst 76 mistakes correspond to female students. Following Lastres-López and Manalastas' classification of spelling mistakes seen above (125), phonologically-related errors, absence or presence of graphemes, incorrect choice of graphemes and splitting of the lexical items have been recognised. Most spelling errors have to do with the capitalisation of nouns and adjectives, as well as with the misuse of letters, exemplified in the excerpts below (errors in *italics*).

- (1) That Aqueduct brought the water which *roman* technicians found at a distance of thirteen kilometres from the city (Trevi Fountain, female learner).
- (2) It is said to be the longest wall in Patricia Delia Catinas Europe and it was made to separate the *barbarians* from the Romans (Hadrian's Wall, female learner).

- (3) This great work of Roman ingenieering has 167 arches and a lenght of 16'222 meters. The aqueduct divides the city in two and despite this in harmony with the rest of the monuments of the beatiful city of Segovia, such as the Cathedral, The Alcazar and the walls (The Aqueduct of Segovia, male learner).
- (4) It is an atthentical jewel of the Roman architecture (Roman theatre in Mérida, male learner).

As seen in the examples, learners failed to capitalise adjectives indicating origin (eg. roman and barbarians), probably because this rule does not apply to students' first languages, namely Spanish and Catalan. Incorrect vowel choices can be found in ingenieering. The absence of the /u/ grapheme is identified in beatiful, whereas the omission of vowels (e.g. /u/) and presence of new consonants (e.g. /t/) is spotted in atthentical. Such wrong choices suggest that participants were not only confused by silent letters but also by the linguistic mismatch between spoken and written systems in English. Another explanation for these misspellings may be linked to revision. The fact that *Google My Maps* software is not provided with spell and grammar checkers does not guarantee the examination of the errors students make. Therefore, revising, editing and proofreading strategies should be introduced in the classroom setting in order to guide learners throughout the writing process.

Wrong word choice

Wrong word choice errors occur when inappropriate items are included in the text, which result in sentences making no sense. Despite differing in the number of instances found in males' and females' performance, wrong word choice errors are the second and third most salient type of error for males and females with 60 and 33 errors respectively.

- (5) Taking into account the references, it was built among the 16 to 15 centuries B.C. This cultural icon is one of the most visited landmarks in Spain. (Emerita Augusta Theatre")
- (6) Ferreres aqueduct, also known as "Puente del Diablo" due to a legend of this construction, was built in the 1st century AD, under the command of Emperor Augustus (Ferreres aqueduct, male learner).

The existence of double equivalents in the English language may not be clear and leads to the misuse of prepositions and nouns. The ideal equivalents for the prepositions *among...to* and *of* correspond to *between...and* and *about*.

Omission

Omission errors have been detected in 88 cases, especially when a lexical item or a group of items are missing in the written outcomes generated through *Google My Maps*. The distribution pattern is unequal in terms of gender, but no striking differences can be noticed, with 50 of these errors being committed by males and 38 by females.

(7) This bridge [...] was declared a UNESCO world heritage (*SITE*) in 1994. It is 331 meters long and it has 16 arches, being one of the most important (*BRIDGES*) entering to the south of Hispania (male learner).

(8) Built in 315 AC. (*IT*) Was commissioned by the Roman Senate in order to commemorate Constantine's victory over emperor Maxentius at the Battle of Milvian Bridge (Arch of Constantine, female learner).

As illustrated in examples 7 and 8, nouns and subjects are occasionally omitted following the written conventions they have learnt in Spanish. Nonetheless, other linguistic elements that tend to be missing in these interactive maps include conjunctions, definite and indefinite articles, thereby being strongly influenced by their native language.

Lexical transfer

Another category that was problematic in learners' writings has to do with lexical transfer, which takes place due to interferences from their L1. This is the fourth most common category in males' written outcomes with 48 instances, but it is the third most frequent type of error for females.

Subcategories such as calques, coinages, borrowings, semantic confusions or lexical inventions were examined, but sometimes they were difficult to explain. Borrowings were employed to signal unknown items in the target language by inserting words directly taken from their L1. Some of them were not familiar with the abbreviations used in the Gregorian calendar system, which stand for Before Christ (BC) and Anno Domini (AD) (in the year of our Lord). Evidence is found in the following excerpt:

(9) The inside of the library and all of its contents were destroyed in a fire at the 262 *AC* due to an earthquake or a Gothic invasion. (Library of Celcius, female learner)

Other borrowings involve common and proper nouns. In example 6 orthographical similarities between prision (taken from Spanish) and prison (English) could led the student to some confusion. Examples 10, 11, and 13 suggest that the use of Spanish equivalents may be the determined by orthographical and phonological similarities.

However, the student's unawareness of the British religious culture can be inferred from example 12, where *Camino de Santiago* is employed instead of *Way of St. James*.

- (10) In 11th century it became a christian church, and in 19th century a prision (Amphitheatre in Tarraco, female learner).
- (11) The Roman Pantheon is one of the preserved monuments of Ancient Rome. It was built in the second century (118 AD - 125 AD) during the Adrian's empire (Roman Pantheon, female learner).
- (12) This wonderful monument was declared a World Heritage Site by UNESCO in 2000 and it was included in the primitive way of the Camino de Santiago in 2015 (Roman Walls of Lugo, male learner).
- (13) A visit to the Roman Ruins of Itálica is a must if you are in the city of Seville since it is the "Pompeya of Spain", its mosaics are *know* for the exceptional quality and state of preservation throughout the world (Roman Ruins of Itálica, male learner).

The use of coinages has also been influenced by participants' L1, who adapt words into the English language so that they look or sound alike. Incongruences between students' L1 and L2 and semantic confusion can be found in example 14. Thus, it can be assumed that the learner forgets about the existence of other semantic-related words.

- (14) The tower has 55 meters told, and it was built by the romans in the 1st or 2nd century AD. Nowadays it still works and is the unic and oldest roman lighthouse in the world. (The Tower of Hercules, male learner)

Literal translations, also known as calques, have been identified in CLIL learners' written performance. As observed in 15 and 16, words or expressions are translated into the target language assuming that these morphosyntactical structures convey the same meaning, even though they are not correct in English. Instead, the correct equivalents would be: *was no longer used* and *aim/purpose*.

- (15) However, the roman theatre stopped using with the arrival of Christianity (Roman Theatre in Merida, female learner)
- (16) The end was to replace the old Carthaginian palisade of logs and mud (Seville Wall).

The occurrence of these lexical transfer errors makes us think that more exposure to authentic language should take place. The use of complementary digital resources could help learners improve their communicative competence so that these errors do not get

fossilised. Hence, *Google My Maps* could be employed in the classroom together with spell-checkers, language dictionaries and other pedagogical tools.

Wrong word form

Wrong word form choices consisted of incorrect items that do not fit in the context, these being the least common errors produced by CLIL learners with a total number of 33 cases. The fact that two words have very similar forms may lead to confusion as shown in the following instances.

(17) *Gladiator* fights (munera) and fights of wild beasts (venationes) and also public executions of those condemned to death were held. *Its* one of the best preserved monuments in the Roman province of Hispania (Roman Amphitheater in Tarragona, male learner)

(18) This as a good complex of thermal waters *consisted* of hot, warm and cold baths. (Bath, female learner)

In example 17, the student was meant to use an adjective (e.g. gladiatorial), but ends up using the noun form of that item. Another word formation error is considered in example 18, where the student wrongly uses the ending -ed, which should be replaced by -ing.

Addition

These lexical errors have been detected when unnecessary articles, prepositions or other linguistic elements have been added or misplaced in the text. These errors were occasionally committed by CLIL learners, who were not able to avoid useless items in the target language. Males committed 21 of these errors in contrast to females who produced 14.

(19) This amphitheater is a Roman building (LOCATED) in *the* ancient Tarraco,

(20) It is located in Merida, previously called *as* Emerita Augusta (Roman Theatre in Merida).

(21) One of the three preserved Roman fish farms in the province of Alicante, these ruins are nowadays *an* open to the public place where you can swim and appreciate the ancient stone carvings Romans, arranged for the farm to be useful at its most.

As seen in the examples above, definite and indefinite articles as well as prepositions are wrongly employed. In examples 19, the definite article is added due to students' mother tongue. However, no explanation can be given with regards to the use of the indefinite

article *an*, as in example 21. As for example 20, students' familiarity with the expression *known as* may have prompted the misuse of this preposition.

The presence of unnecessary repetitions should be avoided in the text in order to create high-quality texts. Some excerpts of students' written performance can be read as follows:

(22) It is *inexplicable to explain* how they could have been brought there without the help of the technological advances that we have today (Baalbek)

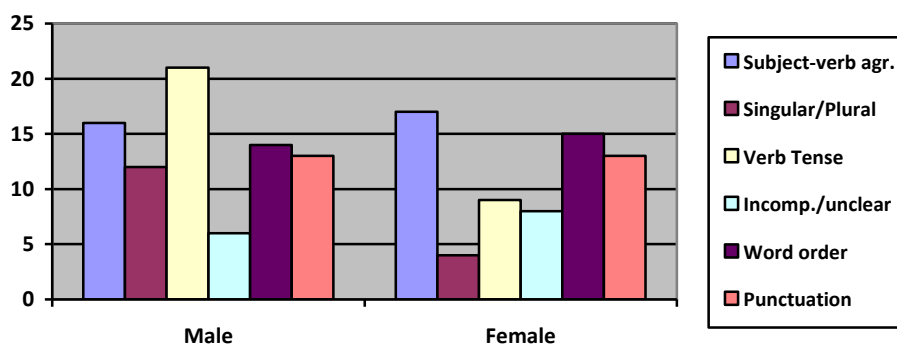
(23) The design has been perfectly preserved *to this day* and *to this day* serves as the main concert venue of Athens (odeon of herodes atticus).

Evidence may be found in examples 22 and 23 above, which contribute to making the text redundant. Instead, different adjectives could be included in example 22 and the expression *to this day* could be removed.

ii. Grammatical errors

Figure 4 displays the most salient grammatical errors encountered in this study. Male participants found it hard to conjugate verb tenses properly in contrast to their female counterparts, the former ones with only 9 cases. Other typical errors that take place in their written pieces have to do with subject-verb disagreement, wrong word order and singular/plural forms. Punctuation and unclear utterances seem to be the least recurrent grammatical errors in texts written by CLIL learners.

Figure 3. Grammatical errors



Verb tense

From the data gathered, the wrong construction of verb tenses remains the most persistent grammatical error in the CLIL classroom with striking differences between both genders. It should be stressed that these results are not the same for female learners, who

seem to perform better within this category with 9 errors as opposed to male learners where 21 of them were spotted.

What has caught our attention the most are inaccuracies with passive and perfect tenses. In this sense, our data seem to reflect either poor communicative skills or lack of thinking that may somehow lead to fossilised errors. In example 24, we can see the absence of the perfect tense, in which the presence of the verb *to have* and past participle forms is required (e.g. I have already visited).

- (24) I chose this place for my assignment because I already visit this theatre three times as part of a scholar trip (Sagunto Roman theatre, female learner).

As regards the construction of the passive voice, the student's incorrect use of the regular past participle in *are divides* should be revised so as to be aware of the correct structure.

- (25) The Roman cities are divides into two main streets, the Cardo Maximus (Augustan Road, female learner).

The passive voice is employed in other complex constructions. These appear when having a good command of the target language. This is the case of example 26, where the correct version would be: *was thought to be*.

- (26) This wall delimits the historic area of the city, which used to be thought to be an obstacle to the progress and evolution of the city, (Roman wall of Lugo, male learner)

Subject-verb agreement

Subject-verb disagreement has been listed as one of the most persistent grammatical errors among History students when implementing *Google My Maps* in pedagogical practices. Out of the 33 grammatical errors identified in the samples analysed, only 16 of these errors are found in males' writings. However, the frequency of these errors equals 17 in females' written outcomes.

Incorrect verb inflections are found in examples 27, 28 and 29. These instances seem to depict fossilised errors based on the omission of the 3rd person singular and 3rd person plural inflections. Hence, suggested corrections would involve *has*, *measures* and *were sent*.

- (27) The complex have the biggest temples of the empire, like the enormous temple of Jupiter (Temple of Bacchus, male learner)

- (28) The stone wall measure 4.6 meters high and 3 meters deep (Hadrian's wall, female learner).

- (29) The researchers found objects there that was sent to a museum.
(Saguntum's Roman Theatre, female learner).

Word order

Word order was the third most common grammatical category found in students' samples and gender-based distribution differences were minor. A total of 29 errors were listed, with females and males committing 15 and males 14 respectively.

As seen in example 30, word order is altered due to students' interference of their L1 syntactical structures. As a result, the placement of *on the ground floor* does not sound natural, neither in writing nor in speech.

- (30) The mansion used to have on the ground floor the entrance hall, the courtyard and a garden.

- (31) This aqueduct is one of the best preserved Roman aqueducts and a symbol of the city where is it (Aqueduct of Segovia).

In example 31, word order error also reflects the influence of Spanish. The use of relative pronouns is usually connected to interrogative structures where subject-verb inversion takes place. Apart from that, relative pronouns are also used to introduce subordinate clauses. Consequently, this wrong order error may respond to students' lack of comprehensive knowledge in the English language.

Punctuation

Punctuation errors could be interpreted based on subjectivity and stylistic preference without forgetting the conventions of the English written system. Out of the 42 participants, males committed 13 punctuation errors, with an average of 0.62 errors per participant. The highest distribution of punctuation errors was thus encountered in females' written outcomes with an average of 0.68.

Some of these errors concerned the usage of commas, periods and apostrophes. The suppression and overuse of commas, periods and semicolons is presented below. In Example 32 the comma following Segovia should be removed and a comma should be added before introducing the utterance *both nationally and internationally*.

- (32) The Roman aqueduct of Segovia, is one of the best preserved and well-known archaeological remains both nationally and internationally. It is also one of the symbols of the city [...] (The Aqueduct of Segovia, male learner).

- (33) and in genitive forms When we talk about the Ionic order; we are talking about the decorative style used on the capitals of the columns that decorate the

facades of the temple; although this is not the case, in addition to this order, there is also [...] (Portunus temple, female learner).

- (34) *Its* one of the best preserved monuments in the Roman province of Hispania (Roman Amphitheater in Tarragona, male learner)

As seen in example 33 above, periods were omitted and semicolons were unnecessary misplaced. Other relevant issues were related to the suppression of apostrophes when contracting verbs, as in example 34.

Singular/plural forms

When it comes to singular/plural markers, a reduced number of students failed to distinguish the correct forms. Even though there was a low number of cases, males' errors outnumbered the inaccuracies detected in females' writings. Example 35 reports that Spanish speakers find it difficult to use the plural form of *this*, not only because 'these' is an irregular plural but because they are not able to discriminate vowel length differences.

- (35) In *this* shows, between 500.000 and 1.000.000 citizens died (Coliseum, female learner).

- (36) The name given by the Romans is unknown and was used to defend *itself* against the Germanic tribe (Saalburg Castellum, male learner).

Example 36 above clearly illustrates the wrong use of the pronoun *itself*. Two options could have been employed to correct singular/plural disagreement, either *themselves* or *the population*.

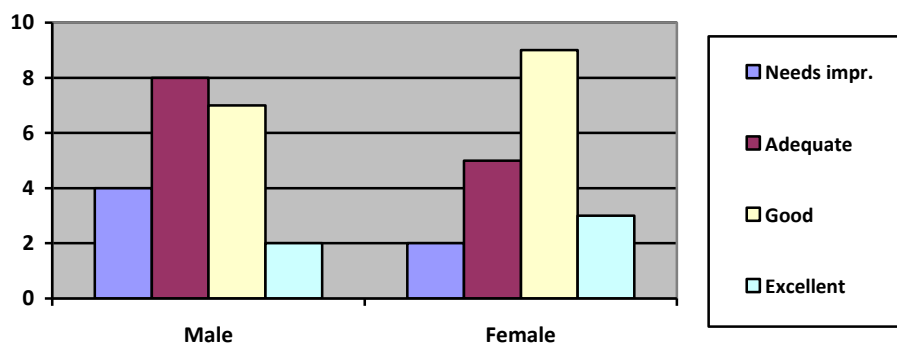
Unclear utterances

As with singular/plural form disagreement, the number of unclear utterances decreases considerably in the writing process for both males and females. This type of error was more frequent in females' samples, who committed 8 out of a total of 14 errors. From these results we can presume that very few students mastered the target language at a basic user level. Thus, clear examples that would need to be rephrased for clarification purposes can be read as follows:

- (37) The paintings that decorated the front of the stage when fashion marked doing in with marble. (Guadix Roman Theare, female learner)
- (38) This construction is part of the three spectacle buildings that had a first-level Roman city capital of the one of the Empire (Roman pantheon, male learner).

Building on the assessment criteria for written productions, it can be assumed that female students had a better command of the lexico-grammatical elements available in the English language. According to Figure 4, males' linguistic skills were generally adequate due to the presence of spelling, wrong word choice, omission and verb tense errors. Some students' contributions needed more language revision than others, two of them showing a high level of accuracy.

Figure 4. Assessment criteria: Language

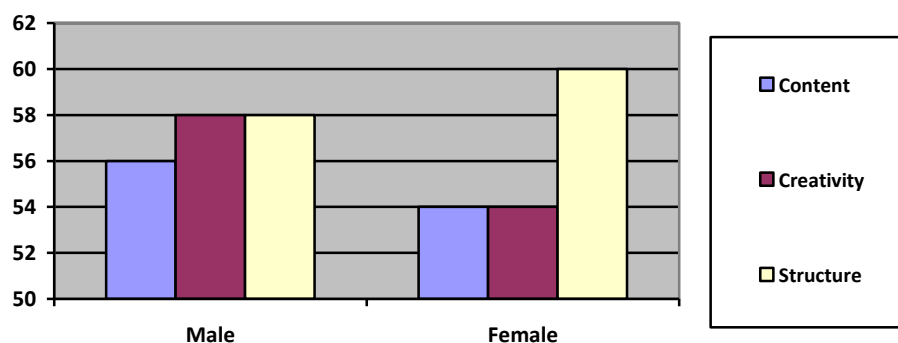


On the other hand, females scored higher in the language variable, which demonstrates they are better communicators than their male counterparts. These results seem to be consistent with past research suggesting that female learners are better at language learning due to cognitive and motivational factors (López Rua 110-112).

b. Content, creativity and structure

We were interested in finding not only what types of errors are more frequent in students' written outcomes, but in cognitive, creative and organisational variables. As seen in Figure 5, the content component in males' written performance scored 2.67/4 whilst it was 2.84/4 for females. Regarding structure, female students seem to discuss ideas in a more logical way.

Figure 5. Assessment criteria: Content, creativity and structure



In addition, maps' customisation by means of colours, icons and pictures together with the incorporation of curiosities and students' personal opinions remains almost the same for both genders (males= 2.76, females=2.84). Evidence of the creative outcomes obtained by means of the *Google My Maps* platform may be found in the following excerpts:

- (39) I couldn't not include this site, since it's a proof of Roman occupation as close as Calpe, and the fact that you can freely swim in what was once the source of food of its population 2000 years ago just makes it totally worthy (Baños de la reina, female learner).
- (40) My curiosity for these Roman archaeological remains is given by the large number of times I have visited the surrounding villages that can be found near this arch with my parents or my friends. Whenever I passed by, I wondered when and who should have built this monument (Roman arch in Cabanes, male learner).
- (41) As a curiosity with this door is that the Romans built it to protect the sacred forest of Augustus, and not the city, but that is a mystery that is unknown today (Roman walls of Lugo, male learner)
- (42) I have chosen this location because it is where I was born, and I have visited it many times (Amphitheatre in Tarragona, male learner).

As seen above, learners' personal views were welcome. Some of these contributions were related to individuals' experiences and curious facts about the archaeological sites that caught their attention. Therefore, it can be deduced that when assignment guidelines are precise, the integration of OERs within innovative educational practices is recommended.

5. CONCLUSION

Technology-enhanced CLIL practices are quite recent in learning environments, with positive outcomes in the acquisition of receptive and productive skills in the target language. However, scarce research can be found about the development of writing skills when supported by OERs. This is the reason why the purpose of this paper was to examine students' written performance using *Google My Maps* with a special focus on lexicogrammatical errors. To this end, this study departed from the following research questions (RQ): (1) What types of writing errors can be spotted in first year tertiary students in a History CLIL classroom in the production of *Google My Maps* texts?, (2) Is there any significant difference between male and female students' written performance in *Google My Maps* texts?, and (3) What benefits can the use of *Google My Maps* entail in a CLIL History classroom?

As noted, the tool known as *Google My Maps* has been used to collect original written outcomes produced by university students involved in a CLIL History module offered at a Spanish university. Focusing on the first RQ, the findings have revealed that the most typical errors produced in these interactive maps occur at a lexical level. The highest proportion of lexical errors was related to spelling, followed by wrong word choice and omission errors, with slight differences between males' and females' writings. On the contrary, a low number of errors were detected in students' written outcomes at grammar level, which were mainly related to subject-verb agreement and verb tense inaccuracies. Within this scenario, it is obvious that the use of computer technologies may have had a detrimental effect on first-year undergraduate students' written competence, particularly on the ones enrolled in the History and Heritage degree. This is not surprising since younger generations heavily rely on grammar and spell checkers embedded in word processors, email programs and widely popular platforms such as *Whatsapp*. Likewise, students' incorrect use of lexical items is strongly linked to their L1. Therefore, more training on these areas and more exposure to the target language should be considered in the curriculum design.

Turning to the second RQ, gender differences have been observed. Even though spelling errors are common in both male and female written productions, omission and wrong word errors prevail in male learners, whilst omission and lexical transfer errors have been observed in female learners' performance. As for grammar, verb tense errors have been the most recurrent in males' written outcomes in contrast to subject-verb agreement

errors, which were persistent in females' written outcomes. Even though CLIL learners seem to perform better in grammar, detecting and providing feedback on problematic issues would have a positive impact on students' writing process.

Regarding the third RQ, *Google My Maps* has proven to be an effective and valid tool for the gathering of a small corpus of students' written texts for analysis and further research. The findings obtained will shed some light on the linguistic areas that seem to be more challenging in the CLIL classroom. A thorough comprehension of the results can also contribute to refining teachers' expectations about the development of undergraduate students' written competence through OERs, and thus guide educators towards the implementation of successful pedagogical initiatives and teaching strategies in CLIL contexts.

As far as pedagogical implications are concerned, this research study has provided evidence about the positive impact of *Google My Maps* in CLIL contexts as it enables the generation of multimodal texts. Based on our findings, the writings gathered with *Google My Maps* seem to boost the acquisition of a set of learner autonomy, summarising and critical thinking skills, all of them of utmost importance in foreign language learning. Providing students with corrective feedback will also help them to raise awareness on their learning progress so that errors do not get fossilised. Therefore, empowering students to produce writings aided by multimodal OERs may lead to successful learning experiences as they get to express opinions and curiosities.

Further research concerned with technology-enhanced CLIL programmes is still needed since language learning opportunities are endless in EFL environments. Evidence-based practices with OERs would aid educators willing to disseminate subject-matter knowledge in the target language, especially when addressing difficult linguistic aspects in writing, reading, listening and speaking.

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EFL Written Competence through Blogging within the CLIL approach: Product Writing Analysis

Competencia Escrita en inglés mediante el Blogging en el enfoque AICLE: Análisis de la Escritura como Producto

Salvador Montaner-Villalba
Universitat Politècnica de València, Spain
smonvil@idm.upv.es

Abstract

This paper aims to verify whether blogging helps to improve the quality of EFL written competence within Content and Language Integrated Learning. We conducted an experiment with learners studying geography using English in the 3rd year of secondary education during the academic year 2017-2018. One group of 11 students participated in the treatment group through blogging, while a second group of 11 learners completed the experiment within the control group using Google Docs. In the case of the treatment group, learners completed 5 different written tasks through blogging and, regarding the control group, students completed 5 tasks via Google Docs. Regarding the treatment group, an interactive digital written task is also analysed. The outcomes showed that there was a relevant difference between the treatment group and the control group. This confirms the research hypothesis, which is that the treatment group would achieve better outcomes than the control group.

Key words: English, Content and Language Integrated Learning, Blogging, Written Competence, Written Product Analysis

Resumen

El objetivo de este trabajo consiste en verificar si el blogging mejora la competencia escrita en inglés mediante el Aprendizaje Integrado de Contenidos y Lenguas Extranjeras. Se realizó una investigación empírica con alumnos de tercer curso de educación secundaria

que estudiaron geografía en inglés durante el curso académico 2017-2018. Un grupo de 11 alumnos participaron en modalidad experimental mediante el blogging. Un segundo grupo de 11 alumnos participaron en modalidad control mediante Google Docs. Tanto los alumnos del grupo experimental como del grupo control realizaron 5 tareas de expresión escrita mediante el blogging y a través de Google Docs. También se analizaron resultados de una actividad escrita digital interactiva realizada por alumnos del grupo experimental. Los resultados mostraron que hubo una diferencia relevante entre el grupo experimental y el grupo control. Esto corrobora la pregunta de investigación, según la cual el grupo experimental consigue mejores resultados que el grupo control.

Palabras clave: Inglés, Aprendizaje Integrado de Contenidos y Lenguas Extranjeras, Blogging, Competencia Escrita, Escritura como Producto

1. INTRODUCTION

This research emerged due to the need to improve the quality of the English written competence of a group of English as a Foreign Language (EFL) learners, in their 3rd year of secondary education within the plurilingual programme which is offered by the Education Department of Valencian Region. This research aims to verify whether EFL written production within the area of geography improves through blogging using Word Press (<http://www.wordpress.com>). This research is a response to the lack of publications (Montaner-Villalba 54 and 95) related to blogging when teaching EFL within the CLIL approach in secondary education in Spain.

1.1. Blogging and Foreign Language Learning

Regarding the literature related to blogging within teaching and learning foreign languages, a considerable number of significant papers (Arslan & Sahin-Kizil 185; Sun, 329, among others) have been published.

As for the literature related to blogging, empirical research has been increasing notably within the first two decades of the 21st century. Here, we give a brief review of the latest literature which focuses on blogging in a concise manner, paying special attention to written competence. Gunduz (440) researched the higher students' perception regarding the use of blogging with the aid of the interaction process, through which students had to read posts from their colleagues in order to comment on them. From the corresponding entries in the blogs as well as a questionnaire at the end of the experiment, the outcomes

showed that the use of blogging offers learners the chance to exchange feedback and enhancing critical thinking. Regarding this interaction process while blogging, Montaner-Villalba (125) indicates that, from the results obtained in his quantitative analysis through ANOVA model of repeated measures, learners from the treatment group notably improved the marks for their interaction tasks at the end of the experiment if we compare these with the first term, when the outcomes were not satisfactory.

Moreover, it should be noted that recently, some empirical research on blogging in English for specific purposes has been published within the educational context of vocational training. While, on the one hand, Montaner-Villalba (240) analyzed quantitative data with the aim of verifying whether learners improved their ESP (English for Specific Purposes) written competence within the field of English related to design and furniture, Montaner-Villalba (99) explored blogging in the same educational context through a qualitative study. In both studies, the outcomes were satisfactory implying, thus, a notable improvement regarding ESP written competence through blogging.

Lastly, since this current research is contextualized within compulsory secondary education, it is adequate to write a concise literature review on blogging within the field of English learning at this level. Paschalidou (379) researched how A-level learners in a school in Greece perceived blogging as an interaction tool, where the outcomes are not satisfactory in comparison with other empirical research (Akdağ & Özkan, 94; Evangelidi, 288; Montaner-Villalba, 195) where the results were satisfactory emerging, thus, significant learning from the participating students.

1.2. Content and Language Integrated Learning and ICT

Since this paper is focused on quantitative research related to the use of ICT within the CLIL approach in a non-university setting, a brief overview of literature related to ICT within the CLIL approach is given. It should be highlighted that, in general terms, the work by Maggi et al. (215) aims to demonstrate how to utilize the Web 2.0 tools in various contexts of learning foreign languages within the CLIL approach.

Regarding empirical research, the latest papers by Hernández-Nanclares & Jimenez-Muñoz (268) and Finardi, Silveira, Lima & Mendes (492) are noteworthy; both being papers within the tertiary educational setting. Hernández-Nanclares & Jimenez-Muñoz (268) explored social networks and microblogging within a blended learning context so as to verify whether learners improved their level of English within the CLIL approach. The outcomes here showed that a holistic method in which various pedagogical approaches

are combined with ICT and face-to-face educational practices, can not only remedy but also maximize learning opportunities for the students.

As for Flipped Classroom through CLIL, research by Finardi et al. (473-493) and Capone et al. (6579- 6582) is significant. Finardi et al. (473-493) aimed to develop an educational proposal consisting of an English course as an Additional Language (EAL) within a blended learning context, where the CLIL approach is adopted through Flipped Classroom with the use of Massive Online Open Courses (MOOCs). In this paper, the outcomes demonstrated that the CLIL Inverted approach is successful in mitigating various aspects such as lack of time to teach curricular contents, lack of motivation from learners, absence of accessing online education through MOOCs, and so on. Capone et al. (6579- 6582) explored the use of Flipped Classroom through CLIL within the area of quantum mechanics in secondary education in Italy, obtaining satisfactory results since this experiment showed that there was a notable improvement from students learning complex subjects, such as quantum mechanics.

Although extensive empirical research has been published within the university setting, some research has also been developed in secondary education (Capone et al., 6582). In this vein, Odonne (110) focused on the use of YouTube videos so as to enhance the learning of scientific subjects through the English language within the project-based learning approach in secondary education. Montaner-Villalba (63), through qualitative research, analyzed blogging within the CLIL approach to determine whether EFL learners improved their EFL written competence in the area of geography. The outcomes showed that there was a notable improvement in written competence at the end of the research. One of the latest empiric research on ICT within the CLIL approach is the work by Hernández Martínez (20) who explored the potential of e-Twinning to enhance telecollaboration in CLIL contexts. The author, in her research, proved the efficiency of telecollaboration on both student's language as well as their content acquisition.

1.3. Written Production within the CLIL approach

Since this paper aims to analyse written production within the CLIL approach with the aid of the ICT, we will offer next a concise state-of-the-art on written production within the CLIL approach with a special focus on non-university context in line of this current research. As for this issue, Roquet & Pérez-Vidal (495) investigated the differential effects of both formal instruction as well as CLIL on EFL written production within the context of Secondary Education. The authors, in their mixed research, assessed various variables,

such as complexity, accuracy, organization, grammar and vocabulary. The authors proved that, although there was improvement in both formal instruction and CLIL, the outcomes were only significant in the domain of accuracy.

Even though wide empirical research on EFL written production has been made at Higher Education within the CLIL approach or, rather, English as a Medium Instruction (Arnbjörnsdóttir & Prinz, 172), some research has also taken place in Secondary Education (Gené-Gil, Juan-Garau, Salazar Noguera 161; 303). While, on the one hand, Gené-Gil, Juan-Garau & Salazar Noguera (161) aimed to offer outcomes on the practice of EFL written competence, bearing in mind various variables, such as complexity, accuracy and fluency in writing proving that secondary CLIL learners performed much better than non-CLIL learners of English through formal instruction, on the other, Gené-Gil, Juan-Garau & Salazar Noguera (303), presenting longitudinal findings on the development of same variables, mentioned above, showed that non-CLIL students obtained better results in lexical complexity than their CLIL partners suggesting, thus, the effectiveness of the CLIL approach within the field of language learning.

Latest publications on written competence within the CLIL approach include authors such as Lahuerta Martínez (184; 132) and Chumbay & Quito Ochoa (90). Lahuerta Martínez (184) aimed to compare the outcomes between one CLIL group of students and a non-CLIL group proving, from the findings obtained, that CLIL learners fulfilled better than non-CLIL learners, while Lahuerta Martínez (132) focused on analyzing written language accuracy with a special focus on both grade as well as gender. Regarding the grade, results revealed that accuracy evolved significantly in the CLIL instruction context whereas in the non-CLIL group only lexico-grammatical errors descended significantly. Last, Chumbay & Quito Ochoa (90), in their mixed- and quasi-experimental research, showed that the learners from the CLIL-group improved their level of the language and content acquisition in comparison to the non-CLIL group of learners.

The current study addresses the following research questions: Do students in the 3rd year of compulsory secondary education improve their EFL written competence? Do these students improve their EFL written competence within the CLIL approach? Do they outperform their level of EFL writing skill within the CLIL approach with the aid of the ICT and, to be more specific, through blogging? Do the Treatment group students achieve better outcomes during this empiric research than the Control group learners?

2. METHODOLOGY

The chosen method for this work was action-research, since the author of this paper fulfilled the double role as both researcher and teacher at the time the research took place.

2.1. Context and Sample

The school where this research took place is a state compulsory secondary school located in a municipality of Valencia, Spain; being the Catalan language students' mother tongue. This school has some educational programmes, such as the inclusion of the CLIL approach at various levels of secondary education. The centre offers various active educational methodologies (Task-Based Learning, Cooperative Learning approach and Service Learning). Moreover, several European programmes (KA1, Erasmus+) are delivered in this school every year. This school became popular one decade ago and it is still due to the implementation of Content and Language Integrated Learning, creating an interest in learning English through non-linguistic areas such as biology in the 1st year of secondary education, maths in the 2nd year and geography in the 3rd year.

22 students (11 female and 9 male learners) participated in this experiment. These participants, aged between 14 and 15 years old approximately, were studying in the 3rd year of compulsory secondary education at the time of the experiment. They were chosen in a random manner from two different CLIL classes which the 3rd year Secondary Education were composed. The results of the initial written test, which took place before beginning this research, proved that these students had a B1 level of English according to the Common European Framework of Reference for Languages (2001). This experiment took place in the academic year 2017-2018. Since they were enrolled within the CLIL approach at the time of the experiment, these learners studied geography through the English language. A total of 11 students participated in the treatment group (henceforth, the T group), and 11 learners participated in the control group (henceforth, the C group). The learners who participated in the T group did their written tasks through blogging, whereas the participants in the C group completed their corresponding tasks through the online tool *Google Docs*. As these students were teenagers, written permission was required from their parents so that the students could participate in the experiment.

Regarding the teachers participating in this experiment, there were two: firstly, the EFL teacher who was the researcher and, thus, the author of this paper and, secondly, the teacher who is an expert in the non-linguistic area of geography, whose collaboration was key in this experiment.

2.2. CLIL Implementation

This section will focus on how the CLIL approach was utilized in both the treatment group and the control group. This experiment approaches CLIL as a teaching practice which was integrated into the geography teaching curriculum through blogging for six teaching hours per week for a complete school year (2017-2018) and implemented with 3rd year students at compulsory secondary education at a state school in the province of Valencia (Spain). Its philosophy lies in the “4Cs” CLIL Framework (Coyle 545), *Content*, *Communication*, *Cognition* and *Culture*. The 4Cs framework starts with *Content*; that is the subject matter which focuses on the interrelationship between content (subject matter), communication (language), cognition (thinking) and culture (awareness of self and “otherness”) in order to build on the synergies of integrating learning (content and cognition) and language learning (communication and cultures). In this current experiment, *content* was the subject, geography, *communication* was related to geographical language, which learners would use to communicate during the project, *cognition* referred to the thinking skills and *culture* concerns the cultural focus in this current experiment; for instance, whether learners were encouraged to create written texts such as writing a report about a lake, summarizing the process of urbanization from the pre-industrial to the current city, and describing specific illustrations through specialized vocabulary.

We considered adequate that learners would do their corresponding writing tasks using the English language within the CLIL approach in order to compare outcomes between the treatment group and the control group learners since the final purpose of this current research was to verify, at the end of this research, whether there was significant learning with both groups or if, on the contrary, there were relevant differences between both groups, regarding the tools used by learners at this experiment.

In the first term, learners were required to do, firstly, their pre-test, or initial writing task before commencing the experiment to check what their initial level was regarding EFL written competence in general terms. Secondly, they had to complete their first written task, which was to write a report about the Lagos Lagoon. Next, the treatment group was asked to interact through blogging in the “comment” section of the corresponding blogs. In the second term, learners had to summarize the process of urbanization from the pre-industrial to the current city and, after the second interactive blogging task, learners were asked to describe specific illustrations through specialized vocabulary in order to finish with the third and last interactive task by the treatment group.

2.3. Research Tools

To obtain the quantitative results of this longitudinal research, we collected data from 5 written tasks from the T-group through blogging, and from the C-group through Google Docs. Since blogging implies online interaction, learners from the T-group were required to complete an interactive digital written task which involved exchanging comments among them while blogging on the platform. Therefore, there were a total of 11 written tasks throughout the whole experiment. These EFL written activities were developed at various moments during the experiment, coinciding with the different assessment sessions throughout the academic year 2017-2018.

The initial test took place during the second week of September 2017; that is, at the start of the academic year. The first task by both the T group and the C group was done between the third week of September and the first week of December; that is, in the first term of the academic year 2017-2018. The second EFL task took place between the second week of December in the year 2017 and the second week of March in 2018 and, thus, in the period corresponding to the second term. The third task was done in the third term of the academic year 2017-2018; in other words, between the fourth week of March and the second week of May in the year 2018. The post-test was done in the second half of May in the year 2018. Lastly, the interactive online written, blogging task done by the T-group learners was developed at the end of the experiment.

The quantitative outcomes of this research were obtained through the diverse written tasks through blogging in the case of the T group and via Google Docs for the C group, with the main purpose of verifying whether learners improved their level as well as their quality of written competence in the English language through its use in the area of geography and, thus, according to the CLIL approach.

2.4. Variables

In this research, since this paper focuses on comparing EFL written competence within the CLIL approach, we shall distinguish within the final product (Shehadeh, 293) the following variables, which will be analyzed in the section related to the outcomes: (1) Content, (2) Organization, (3) Grammar, (4) Vocabulary and (5) Spelling. Regarding the content, students were required to create digital texts about different themes related to the non-linguistic area of geography. As for the organization variable, both cohesion and coherence had to be taken into consideration. Students were asked to use adequate grammar and vocabulary. Lastly, regarding spelling, learners were asked to check that they had not

made mistakes while blogging. This is relevant since spelling is part of vocabulary learning.

2.5. Marking Procedures

Since this experiment was rated by the teacher-researcher, the marking procedure is described. To evaluate the EFL written competence within the CLIL approach and, particularly, the five variables mentioned above, the marks were initially recorded in Microsoft Excel in order to, later, calculate the Anova model. Marks were given, individually, to learners for each variable. Then, the mean of each variable was calculated to obtain the total mean of each digital task, so that we could discuss and analyze how the different outcomes evolved throughout the whole experiment from the graphics obtained. These variables were graded using traditional marking from the Spanish education system, and only by the teacher-researcher since he was the expert in EFL. Therefore, inter-rater reliability could not be calculated. Grade, A varies between 9 and 10, grade B is between 7 and 8, grade C is 6, grade D is 5 and, finally, less than 5 is a fail, which means that learners will not pass either their different subjects within the official curriculum or the different variables of this current experiment.

The rubric used in this research corresponds to the five variables mentioned above. According to these variables related to the final product regarding written competence, the elements of the rubric graded were: (1) Presentation and Text Adequacy, that is, the Content variable which was analysed at this research; (2) Cohesion and Coherence or Organization variable of this research; (3) Grammar competence which is directly related to the Grammar variable of this research; (4) Lexis richness, which is referred to the Vocabulary variable and, lastly, (5) Orthography that is obviously linked to the Spelling variable of this current research.

2.6. Data Analysis

Regarding the collection of quantitative data; first, the ANOVA model regarding the various variables from both the T-group and the C-group was calculated so as to, later, use the Bonferroni (45) correction with the purpose of calculating how the various means from both the treatment and the control group evolved during the experiment, taking into consideration the above-mentioned variables. This analysis was implemented throughout the whole experiment in both the T group and the C group. The outcomes of this analysis are presented in this paper through figures.

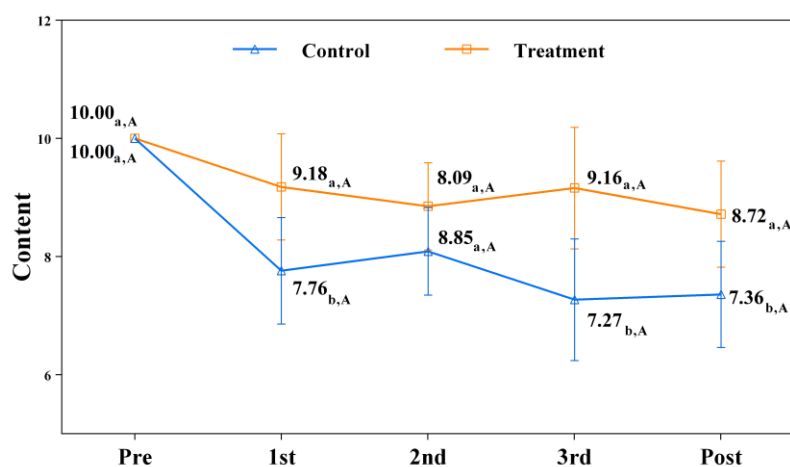
3. OUTCOMES

In this section, the quantitative outcomes of the diverse EFL written tasks are analyzed. The data collection was done through the different written tasks within the CLIL approach through WordPress (T-group learners), and via Google Docs (C-group learners). For a better understanding, we considered it appropriate to describe the outcomes of this experiment in four main sections: (1) Structure of the text that is related to the variables *content* and *organization*; (2) Language use composed of the variables *grammar* and *vocabulary*; (3) Spelling variable and, (4) Interaction digital written task only completed by the Treatment group learners.

3.1. Structure of the Text

Next, both the *content* and *organization* variables are analysed, with the purpose of answering the question about whether students from both groups improved their marks regarding these variables. In graph 3.1.a, we can observe the outcomes of the *content* variable, throughout the whole experiment with both the C-group and the T-group.

Figure 3.1.a. Evolution of the marks for the T group and the C group in the *content* variable



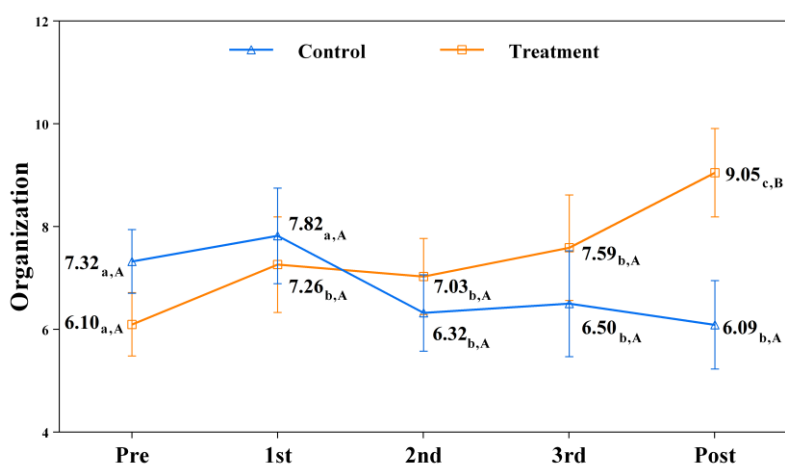
Regarding *content*, for C-group learners, the mark in the pre-test is 10. In the first term, the mark decreases notably to 7.76. In the second term, the mark increases notably to 8.85. In the third term, the mark decreases to 7.27 implying a significant difference between the first and the third term. In the post-test, the mark for *content* increases slightly and, therefore, there is no relevant difference. It must be highlighted that between the pre-test and the post-test there is a relevant difference which suggests that, for C-group learners,

there was worsening, at the end of the experiment, in the quality of content since themes were combined.

Regarding the T-group learners, the mark for the pre-test is 10. In the first term the mark decreases slightly to 9.18. The mark for the second term falls again to 8.09. In the third term, the mark for *content* rises to 9.16. The mark for the post-test decreases to 8.72. There were no relevant differences during the experiment. Neither were there significant differences between the C-group and the T-group learners within the same time frame from the perspective of Bonferroni correction.

In graph 3.1.b below, we can observe the outcomes of the *organization* throughout the whole empiric research in both groups.

Graph 3.1.b. Evolution of the marks for the T group and the C group in the *organization* variable



Regarding *organization*, for the C-group learners, the mark for the pre-test is 7.32. This mark rises to 7.82 in the first term implying that there is not a relevant difference between the pre-test and the first term. In the second term, the mark for this variable decreases notably in comparison with the first term, suggesting that there is a significant difference of 1.5. The mark for the third term increases slightly to 6.50. The mark for the post-test decreases to 6.09 implying that there was no significant difference between the second term and the post-test. We can, therefore, state that there was a significant difference in statistical terms between the pre-test and the post-test; the outcomes of the post-test being the worst.

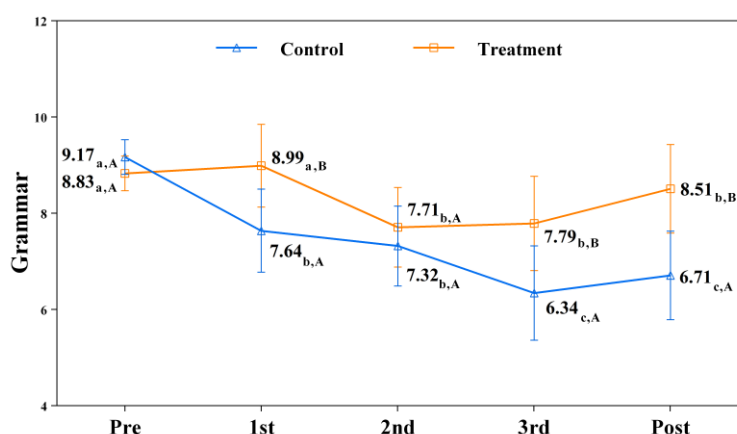
As for the T-group, the mark for *organization* in the pre-test is 6.10. In the first term, the mark rises to 7.26. The mark for the second term slightly decreases to 7.03. A similar

situation occurs in the third term, when the mark slightly increases to 7.59. In the post-test the mark notably increases, which means that there is a significant difference between the pre-test and the post-test. When comparing both the C-group and the T-group, it can be seen that there is a significant difference of 2.96 in the mark of the post-test; the outcomes being higher for the T-group learners. Therefore, it can be confirmed that, regarding this variable, the results were as we initially expected.

3.2. Language Use

Next, the variables *grammar* and *vocabulary* are analysed with the aim of answering the question about whether the students from both groups improved their marks regarding these two variables. In graph 3.2.a, we can observe the outcomes from *grammar* throughout the whole experiment in both the C-group and the T-group.

Graph 3.2.a. Evolution of the marks for the T group and the C group in the *grammar* variable



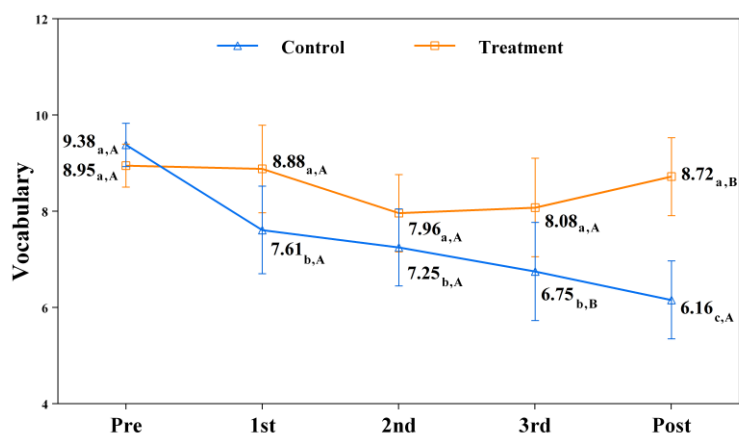
As for the *grammar* variable, in the C-group the mark for the pre-test is 9.17. The mark decreases significantly to 7.64 in the first term. In the second term, there is a slight decrease to 7.32. The mark for the third term falls to 6.34. The mark for the post-test increases slightly, almost reaching a good mark. There is a significant difference between the marks for the pre-test and the post-test, implying that this variable in the C-group did not improve.

As for the T-group, the mark for the pre-test is 8.83. The mark rises slightly to 8.99 in the first term. In the second term, the mark for *grammar* decreases notably to 7.71. The mark for the third term rises slightly to 7.79. The mark for the post-test of this variable

increases again to 8.51. There were no relevant differences between the third term and the post-test. When comparing both groups, we can clearly observe that, while there were no significant differences between the two groups in the pre-test, there was a significant difference between the C-group and the T-group in the post-test. The mark for the T-group is higher than the C-group, as was initially expected. This indicates that the T-group learners have a higher level of English regarding the use of grammar than the C-group learners.

In graph 3.2.b, we can see the results from *vocabulary* throughout the whole experiment in both groups.

Graph 3.2.b. Evolution of the marks for the T group and the C group in the *vocabulary* variable



As for *vocabulary* in the C-group, the mark for the pre-test is 9.38. The mark for the first term descends notably to 7.61. The mark for the second term decreases to 7.25, implying that there is not a significant difference. The mark for the third term descends slightly to 6.75. The mark for the post-test decreases slightly to 6.16. Regarding the pre-test, there was a significant difference of 3.22, meaning that the mark for the *vocabulary* in the post-test decreased.

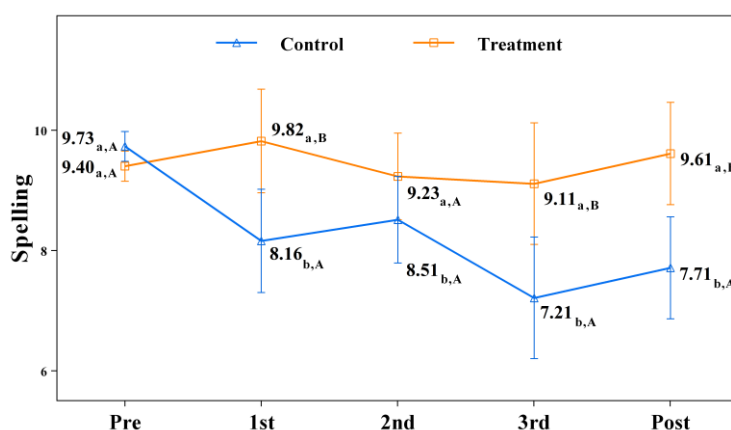
Regarding the T-group, the mark for the pre-test is 8.95. The mark for the first term decreases slightly to 8.88. In the second term, the mark for this variable descends slightly to 7.96. The mark for the third term increases slightly to 8.08. The mark for the post-test rises to 8.72. Therefore, there were no significant differences during the experiment regarding *vocabulary* for the T-group learners. When comparing both groups, we must highlight that there was significant difference between both groups during the various

academic terms of this current research, that is, taking into consideration the factor *time* throughout the whole research. Moreover, we could see significant differences, at the post-test, between the T-group and the C-group. The mark from the T-group was notably higher. This proves again that the outcomes were fulfilled, as was initially expected. Similarly, this happened with *grammar*, as explained above.

3.3. Spelling

The *spelling* variable is analyzed with the purpose of verifying whether learners from both groups improved their corresponding marks having finished the experiment.

Graph 3.3. Evolution of the marks for the T group and the C group in the *spelling* variable



Regarding *spelling*, the mark groups for the pre-test for C-group learners is 9.73. The mark for the first term decreases significantly to 8.16. The mark for the second term increases slightly to 8.51. The mark for the third term decreases slightly to 7.21. The mark from the post-test rises slightly to 7.71. When comparing the pre-test with the post-test, there was a significant difference; the mark for the post-test being notably worse.

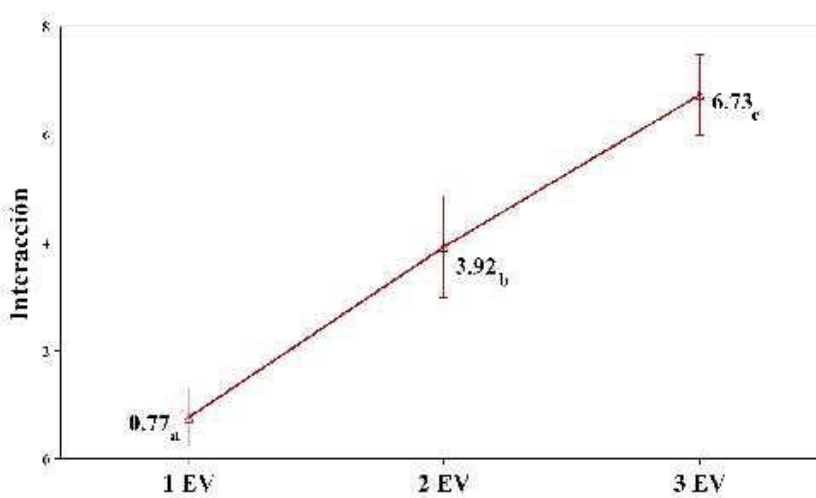
Regarding T-group learners, the mark for the pre-test is 9.40. The mark for the first term increases slightly to 9.82. The mark for the second term decreases slightly to 9.23. The mark for the third term descends slightly to 9.11. The mark for the post-test increases to 9.61. As we can observe in this graph, there were no significant differences regarding this variable for T-group learners. Similarly, neither were there significant differences in the marks for the C-group during the experiment. However, during the experiment, the marks

from T-group learners were significantly higher than C-group learners whereas, for the pre-test, we did not observe significant differences in marks.

3.4. Interaction digital written task

Regarding *interaction*, an ANOVA model of repetitive measures was made with the purpose of evaluating how T-group learners evolved in terms of their grades throughout the interactive online written tasks while blogging. Outcomes proved that the marks for these tasks increased notably from one term to the next ($F(2,20) = 27,48$, $p < 0,001$). In Figure 6, the evolution of grading can be observed.

Graph 3.4. Evolution of marks in interaction



When analysing this graph according to Bonferroni's correction, we can clearly observe relevant difference throughout the experiment regarding the three interactive digital blogging written tasks. The task for the first term is graded 0.77 out of 10. This type of interactive online task when blogging is new for learners and, even though it was previously explained how to proceed, students did not participate in this first interactive digital task in the first term. Next, in the second term, the mark increased notably to 4 out of 10 existing, thus, a huge difference in statistical terms when comparing with the first term. Lastly, in the third term, the results increased again notably to a mark of 6.73, which again implies a significant difference in statistical terms in comparison with both the first as well as the second term. Therefore, the marks for this interactive digital blogging written task improve notably at the end of the experiment.

4. DISCUSSION AND CONCLUSION

In this section, by discussing the different outcomes from this research, we will give an answer to the research hypothesis as to whether EFL learners, from the T-group, in comparison with EFL learners from the C-group, can improve their EFL written competence within the CLIL approach in secondary education through blogging. To be more specific, the different variables related to writing skills conceived as a product will be justified; comparing the outcomes between the T-group and the C-group throughout the experiment. Moreover, since learners from the T-group also participated by interacting while blogging, a variable called *interaction* will also be discussed.

However, before discussing the outcomes of these variables in detail, we will proceed firstly to justify how the results, in general terms, evolved throughout the whole experiment; comparing outcomes between the T-group and the C-group. The outcomes analysed indicate that the variable *time* was significant, implying that the mark of written competence as a product was changed notably during the different terms without any kind of dependence on the group and, simultaneously, there was a significant effect of the interaction between *group* and *time*, proving that *time* was determinant in a different manner to learners depending on which group they belonged to. Regarding the T-group, the outcomes of writing skill as a product evolved positively at the end of the term, while the marks from the C-group decreased throughout the experiment, revealing a significant difference between the two groups at the end of this empiric research. This difference could be caused by the complexity of specialised vocabulary within geography for learners from the C-group while, possibly, this specialized vocabulary was not complex for learners from the T-group.

Next, we will firstly discuss the results of the *content* and *organization* variables. The outcomes of these variables demonstrate that *time* was significant, showing a relevant decrease in the *content* variable and a significant increase in the *organization* variable at the end of the experiment. As can be seen in Graph 3.1.a, the *content* varies throughout the experiment in both the C-group and the T-group, to the point of decreasing the mean of the *content* notably between the pre-test and the post-test. Although the *content* of the diverse EFL written tasks was decided by the geography teacher, not every student completed satisfactorily regarding the content of their tasks in both the C and the T-group between the pre-test and the post-test since they had combined different themes within the same written task. This occurred possibly because of the lack of understanding by

learners while participating in the experiment and, particularly, on the part of learners from the C-group, whose mark was lower than learners from the T-group.

Regarding the variable *organization*, there was a notable improvement in the T-group while, in contrast, a significant decrease in the C-group learners was observed. This significant decrease of the *organization* variable in the C-group occurred because these learners did not complete their corresponding tasks according to what was required. Moreover, we should highlight that the teacher and researcher of this work had to offer learners, at the beginning of the second term, two sessions on how to write a coherent and cohesive text to help learners become more aware of the relevance of creating a well-organized text. We believe that these training sessions helped learners from the T-groups improve their *content* at the end of the term.

Secondly, the outcomes of the *grammar* and *vocabulary* variables will be discussed. The results proved that *time* was a determinant, indicating that the marks of these variables decreased notably over the various terms, without considering the nature of either the T-group or the C-group. The C-group learners, in comparison with the T-group, did not seem to manage with the language use variables. This was possibly due to the level of complexity of English within Geography and, thus, implying a significant decrease in the outcomes from the C-group.

Moreover, the outcomes demonstrated that there was a significant effect of the interaction of *group* and *time* in both variables suggesting that *time* was a determinant according to the group. For example, we observed a slight decrease in the results of the C-group learners, which implied that there were significant differences between the first term and the rest of the terms. Additionally, the post-test marks decreased notably in comparison with the three terms. It is worth noting that the mean of the post-test in the C-group learners, and the previous variables, decreased significantly at the end of the experiment whereas the T-group learners always improved their marks in the post-test.

As can be seen, the decrease of marks in the C-group was considerable with both variables - *grammar* and *vocabulary*. This notable decrease was possibly due to the level of complexity of specific grammar structures as well as specialized vocabulary for geography. Although grammatical structures and specialized vocabulary had both been previously taught by the EFL teacher, this significant decrease may have occurred because the various EFL writing tasks in geography were complex and challenging for the C-group learners.

From the obtained outcomes regarding the *grammar* and *vocabulary* variables, we can infer the following information: as for the *grammar*, in the case of the C-group, the mark decreases in a significant manner in the third term in comparison with the first term, although there is a slight improvement in the post-test. Nevertheless, the *grammar* variable does not improve positively. On the other hand, in the case of the T-group, even though there are significant differences between the second and the third term, when compared with the first term, in the post-test we can observe a significant difference when comparing the outcomes of the T-group with those from the C-group showing that the marks from the T-group are higher than those from the C-group. This significant difference regarding the *grammar* variable could be caused by the degree of complexity of specific grammar structures which are related to geography for learners from the C-group. This is interesting since the students in both the C-group and the T-group were chosen in a random manner.

Regarding the *vocabulary* variable, there is a significant difference in the C-group when comparing the first term and the post-test, where this variable decreases notably in comparison to the other terms whereas, in contrast, the mark for the T-group learners almost reaches excellent. Moreover, this mark decreases slightly throughout the year: in the post-test the mark for *grammar*, in comparison with the C-group, increases notably. There are significant differences between the T-group and the C-group. Again, the mark for the T-group is higher. These outcomes demonstrate that there are significant differences between the C-group and the T-group. Additionally, the marks for the T-group are always higher than those from the C-group. The reason for these significant differences between the two groups is found in the level of complexity, regarding the language use, for the C-group learners.

The last variable to be discussed, from the perspective of writing skills as a product, is *spelling*. The outcomes show that, for the C-group learners, there are significant differences between the first term and the post-test. The results decreased notably in the C-group. In the T-group there were no significant differences throughout the whole experiment, although we observe non-relevant differences in all the corresponding terms. The mark for the post-test of this variable is higher in the T-group than in the C-group.

There was a significant decrease in the *spelling* marks in the C-group at the end of the experiment, which was due to spelling mistakes related to verb tenses, and not because of spelling mistakes when learning new vocabulary, taking into consideration that spelling is

part of vocabulary acquisition. Moreover, the difference between both the C-group and the T-group could be due to the fact that T-group learners were more careful with spelling than C-group learners and, particularly, regarding the acquisition of new vocabulary.

From the outcomes discussed here, we can clearly state that there were significant differences between the T-group and the C-group in the various variables analysed related to written competence as a product; the results for the T-group were higher than those for the C-group. Therefore, to respond to the research question on whether blogging can improve EFL written competence within the CLIL approach and, particularly, in geography, we can affirm that there was significant learning for learners from the T-group in comparison with the outcomes from the C-group learners. These outcomes were initially expected.

Finally, the *interaction* variable will be discussed. The results shown in graph 3.4 show that there was a significant difference throughout the whole experiment; the highest mark being in the third term. The T-group learners were asked to interact and comment on the posts where their own partners within the same group had previously posted their own original written tasks. It is now clear that, at the beginning of the year in the first term, T-group learners did not know how to proceed in order to interact while blogging, even though this had been previously explained to them. It must be noted, however, that this experience was new for learners. This was the first experience of significant learning about blogging which the learners had been offered. They were not familiar with blogging as a learning tool.

In the second term, learners seemed to better understand the interactive dynamic of the blogs, which is a characteristic of the web 2.0, almost reaching a mark of 4. The teacher-researcher had to deliver either 2 or 3 sessions of 45 minutes each to explain to the learners again how to interact in their corresponding blogs by posting comments on the first digital writing interactive task done by learners in the first term. In the third term, there was a satisfactory interactive learning experience while blogging, which demonstrated that blogging helped the T-group learners improve EFL written competence within the area of geography. This research contrasts the study by Montaner-Villalba (57) where the mean of the interactive digital writing tasks while blogging were not satisfactory while Montaner-Villalba (116) proved that the findings from the interactive digital writing tasks improved at the end of the blogging experiment.

It is perhaps surprising that the teenage learners who participated in this study needed to be offered various training sessions on how to use blogging since teenagers are digital natives. They belong to Generation Z. Pérez-Escoda et al. (78) state that learners from Generation Z feel attracted by visual information as they are familiar with mobile devices. For this reason, theoretically, it should not be necessary to offer them training sessions on how to blog. The real problem could be the lack of awareness by various agents from the education community regarding the relevance of using technology in learning.

In this paper, by analyzing written production, we have offered an answer to the research question on whether blogging would help learners to improve their EFL written competence within the CLIL approach. Blogging as a tool for developing written competence as a product helped the T-group learners significantly improve their EFL written production throughout the whole research, while for the C-group learners, the quality of their EFL written production, in comparison with the T-group learners, decreased within the area of geography in secondary education, as it has been proved in the Outcomes section.

This research offered the learners the chance not only to develop their EFL written skills, but also to interact with their peers (Montaner-Villalba 117; 57) by commenting on their respective blog entries. Moreover, learners' interest and, particularly, T-group students' interest increased because blogging was a novel experience in the context of secondary education. However, it should be highlighted that, due to the lack of publications related to blogging when teaching EFL within the CLIL approach (Capone et al., 6582; Odone, 110; Montaner-Villalba, 62, 195) in secondary education within the Spanish educational system, this research offers significant value to the field of computer-assisted language learning, with a context relatively new in academic research as little has been published on this subject to date. Considering the outcomes of this study and because this research represents a small scale and, thus, the data of this study cannot be generalizable, further research is needed to shed more light on how blogging can improve not only learners' written skills, but also other linguistic skills within the CLIL approach.

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Interdisciplinary collaborative approaches in Higher Education: Open Educational Resources for Subject and Language Lecturers

Enfoques colaborativos interdisciplinarios en la Educación Superior: Recursos educativos abiertos para profesores de lenguas y de contenido

Ana María Piquer-Píriz
University of Extremadura, Spain
anapiriz@unex.es

Margarida Morgado
Instituto Politécnico de Castelo Branco, Portugal
marg.morgado@ipcb.pt

Jana Zverinova
MIAS School of Business, CTU in Prague, Czech Republic
jana.zverinova@cvut.cz

Abstract

The so-called ‘internationalisation at home’ (Beelen and Jones 64) of Higher Education Institutions (HEIs), and the need to prepare students for globalised working environments, among other factors, are powerful drivers for change in how we teach at the tertiary level. In the framework of an EU-funded innovation project being developed internationally, called *Interdisciplinary Collaborative Approaches to Learning and Teaching* (INCOLLAB), this article proposes to look at two aspects, namely interdisciplinary approaches through CLIL, the integrated learning of content and language, and the concomitant collaboration among content and language lecturers to plan and design innovative customisable teaching materials as Open Educational Resources (OERs) that can be adapted and used in similar educational contexts. We describe two specific proposals of OERs on the topic of ‘Autonomy Support’ both as part of the subject of

‘Developmental Psychology’ as well as a transversal skill and analyse the results of their implementation in three real contexts.

Key words: interdisciplinary learning, CLIL, teacher collaboration, open educational resources (OERs)

Resumen

La conocida como “internacionalización en casa” (Beelen y Jones 64) en los Centros de Enseñanza Superior (CES), y la necesidad de preparar al alumnado para enfrentarse a entornos de trabajo globalizados son, entre otros factores, importantes motores de cambio para la docencia en la Educación Superior. En el marco de un proyecto de innovación financiado por la UE y desarrollado a nivel internacional que se denomina “Enfoques Colaborativos Interdisciplinarios para el Aprendizaje y la Enseñanza” (INCOLLAB), este artículo propone analizar dos aspectos, en concreto, los enfoques interdisciplinarios mediante el Aprendizaje Integrado de Contenidos y Lenguas Extranjeras (AICLE) y la consecuente y necesaria cooperación entre el profesorado de disciplinas lingüísticas y no lingüísticas para programar y diseñar materiales didácticos innovadores y personalizables en forma de Recursos Educativos Abiertos (REA) que se puedan adaptar a contextos educativos similares. Se describen dos propuestas específicas de REA sobre el tema del “Apoyo a la Autonomía” como parte de la asignatura de “Psicología del Desarrollo” y también como competencia transversal y se analizan los resultados de su implementación en tres contextos reales.

Palabras clave: aprendizaje interdisciplinar, AICLE, colaboración docente, recursos educativos abiertos (REA).

1. INTRODUCTION AND THEORETICAL BACKGROUND

Internationalisation of Higher Education Institutions (HEIs), both physical and virtual (so-called ‘internationalisation at home’, [Beelen and Jones 64]), and the need to prepare students for globalised working environments, telework or remote work in international teams of workers (Fitzpatrick and O’Dowd 27; Morgado, Garcia & Calvete 53; Régio, Gaspar, Farinha and Morgado 25) among other factors, are powerful drivers for change in how we teach at the tertiary level.

Universities are adopting policies to enhance their international profile and to attract students from other countries as well as offering high quality training for their home

students by resorting to English as the Medium of Instruction (EMI) in the class (Macaro, Jiménez-Muñoz and Lasagabaster 104, Pérez Cañado *Teacher training for EMI* 100927). The use of English to teach disciplinary subjects has had a significant rise over the last 20 years (Wächter and Maiworm 16), that has been accompanied by a steadily growing research production (see Macaro et al. 47-50 for a review).

However, is it really enough to invite HE lecturers to use a lingua franca, such as English, to teach for students to become fluent in that language in their specialised field and be able to communicate with others at work? Is it fair to expect students to develop an intercultural and international collaborative frame of mind that will enable them to acquire the hard and the soft skills to cooperate and work effectively with colleagues across the world, if HEIs continue to insist on traditional disciplinary frameworks, where there is no interdisciplinary collaboration, and lecture-based teacher-centred classes happen solely in the official national language(s)? Can we continue to divide knowledge into tight-clad disciplines and separate technical scientific knowledge from humanist knowledge, or research from teaching? Can we continue to look at foreign languages in HEIs as purely instrumental and not as part of the way in which we learn and communicate knowledge and experience effectively?

1.1. Prior research

In the existing research literature in the area, some of the key questions posed above have been identified and explored and some answers are starting to be provided that have emphasized, among other issues, the relevance of integrating content, language and transversal skills; the need to foster more innovative, digitally-enhanced learning environments or lecturers' need for more methodological training and adequate teaching materials.

The relevance of integrating content, language and transversal skills has been highlighted by Fitzpatrick and O'Dowd (3) who mention a paradigm shift that not only impacts English as a lingua franca to be used in academia, but also requires a reappraisal of English, a new awareness and integration with subjects and skills (Marsh 242) in educational contexts that are becoming bilingual (Marsh, Díaz-Pérez, Frigols Martín, Langé, Pavón Vázquez, and Trindade 14-15).

Fitzpatrick and O'Dowd (*English at Work. An Analysis of Case Reports about English Language Training for the 21st-century Workforce* 6) further build a strong case for interdisciplinarity "between language and the combination of professional and cultural

content”, claiming that on entering the global workforce, besides using English proficiently and being able to use the information and communication technologies at their disposal, young people need to be well skilled in transversal skills or 21st-century skills, such as intercultural and global understanding of issues, the ability to communicate effectively with colleagues from other cultures, know how to work in multinational and interdisciplinary teams, and engage in critical analysis.

To these issues we would like to add a further one that this article attempts to address: Is this in the hands of the English teacher alone, or does this kind of training require interdisciplinary work, integration of content and language, a change in teaching and learning methodologies, and a learning environment that goes beyond what happens at HEIs?

Since foreign language education is more effective when students develop projects or tasks for a specific content area and engage in genuine communication through CLIL or content-based approaches (Mehisto, Marsh, and Frigols 199-200), it is becoming increasingly obvious that English teaching and learning in HEIs has to result from the integration of content and language, as well as from the collaboration of subject and language teachers, as demonstrated by research conducted by Dafouz and Smit (18), Wilkinson (611-612), Zappa-Hollman (597) and Doiz et al (172).

The contemporary contexts in which we learn and work dictate these changes. Learning happens today in the context of complex networks of face-to-face and online communication, learner mobility, immersion in work situations while learning, distributed knowledge (from users to users), and a constant flow of information on the Internet, not only at HEIs but everywhere, through social media and multiple technologies, that need to be put at the service of effective methodologies.

Collaborative learning processes (Roschelle 267-68; Salaber 123-124) and shared, negotiated understandings are key concepts to introduce into teaching and learning practices, within academia and between these and the students’ diverse own contexts. Shared, distributed knowledge requires a new *modus operandi*, in which teachers from several departments and students come together to solve a problem or develop a project. This may happen in an organic, spontaneous and informal way, in a community of practice (Wenger & Snyder 139). The community of practice, a group within a larger organisation, is particularly suited to share knowledge, best practices, learning and to drive change. It only requires a shared passion and expertise, as well as a willingness of its members to

share perspectives in creative ways in order to find new approaches. As such, communities of practice are particularly suited in HEIs to experiment with integrating subject and language and digitally-enhanced teaching and learning for the 21st century workforce.

However, digitally-enhanced learning is a complex reality that requires an alignment of a digital infrastructure with a digital culture strategy and with a critical use of digital resources in the sense of using digital tools and apps for integrated pedagogical ends (<https://ec.europa.eu/jrc/en/digcompedu>). The latter can be evidenced, for example, in O'Dowd's and Guth & Helm's research findings that recommend activities of foreign language telecollaboration or online intercultural virtual exchanges as a means to enhance meaningful communication through digital media in international environments employing task-based or project-based methodologies.

Another crucial dimension is to make good pedagogical use of resources on the web in the knowledge networked society we live in. The distributed nature of the online and mobile digital environments, where everybody can be a producer and a consumer of resources, creates an opportunity for shared knowledge at a global scale, which creates an added benefit for those involved in learning and teaching through English.

By definition, Open Educational Resources (OER) are non-commercial digital materials, freely and openly available for educators online, which can be shared and customised for teaching and learning. Their creation and distribution supports global communities of practice that value open learning, as well as flexible lifelong learning paths and self-directed learning, while also supporting teachers with supplementary materials they can use directly in their classes or suggest to students as autonomous learning (UNESCO *Open courseware for Higher Education* 2002, *Open Educational Resources* 2011, 2015; Morgado *Open Educational Resources* 21-22).

Despite all these findings, the shortage of adequate materials for CLIL in general has been a recurrent issue in the research literature (Mehisto, Marsh, and Frigols 22) and has been specifically emphasized by HE lecturers, together with their need for further methodological training, in specific studies that have addressed their needs (Aguilar & Rodríguez 193, Pérez Cañado *Teacher training for EMI* 100927 and Piquer-Píriz & Castellano-Risco 98). For example, the study by Piquer-Píriz & Castellano-Risco explored the training needs of EMI lecturers at the University of Extremadura (UEx) in Spain, as

part of a regionally funded research project, ICLUEx¹. These lecturers acknowledged the importance of information and communication technology (ICT) and virtual learning in their classes: nearly three-quarters of the respondents made use of online learning resources in their classes, and two thirds considered ICT as a key aspect of their teaching. Most of them stated that they had to create their own materials while also adapting resources found on the Internet. These findings seem to confirm the lack of EMI materials available to work with at tertiary level (also suggested by Aguilar and Rodríguez 1993). Besides, the creation and adaptation of teaching materials is a very time-consuming task, especially if attention must be paid to both content and language. INCOLLAB aims to make a contribution in both respects as will be explained in further detail in the following subsections of this section (section 1), while in section 2, the general principles of designing OERs are addressed and two illustrative examples provided, and in section 3, piloting of OERs in particular contexts is discussed in terms of customisation, adoption and adaptation.

1.2. The approach purported by INCOLLAB

In the framework of the first development stages (OER design and OER implementation) of an EU-funded (under Erasmus+) innovation project, called *Interdisciplinary Collaborative Approaches to Learning and Teaching* (the acronym of which is INCOLLAB), which addresses all the above questions, this article proposes to look at two drivers of change in HEIs, namely interdisciplinary approaches through CLIL (Content and Language Integrated Learning), LSP (Language for Specific Purposes) and EMI (English Medium of Instruction); and, the concomitant collaboration among Higher Education (HE) lecturers to plan and design innovative customisable teaching materials as Open Educational Resources (OER) that can be adapted and used by other HE lecturers in their classes. This approach is thus different from current trends in HE that look at collaboration, teacher identity or teacher training in English-medium instruction (EMI) research (Wilkinson 608-609) as it focuses on modalities of integrating content and language in student learning.

¹ "Diseño de entornos virtuales de aprendizaje colaborativo para la enseñanza integrada de contenidos y lenguas extranjeras (AICLE) en la Educación Superior adaptados a la Universidad de Extremadura" - *Developing virtual collaborative learning environments for content and language integrated learning (CLIL) in Higher Education adapted to the University of Extremadura* (IB18055), Junta de Extremadura and European Regional Development Fund – ERDF

The specific priority of INCOLLAB is to improve the quality and effectiveness of pedagogies in the participating HEIs² and beyond, by creating, sharing, and disseminating interdisciplinary collaborative approaches to learning and teaching through a tailor-made digital learning platform, where innovative online modules in the form of OERs created by the lecturers involved on the project can be found.

INCOLLAB promotes a CLIL approach, but also a LSP approach, as well as the use of any of the following languages, English, Spanish or German, as a medium of instruction with students for whom this is not their native language or the official language of the country they are studying in. However, it does so by striving to engage content and foreign language lecturers in communities of learning and practice to discuss innovative learning approaches with a focus on student learning rather than teaching. It further promotes the integration of content, foreign language and the development of transversal skills.

Rather than focusing on a linguistic policy or linguistic strategy, INCOLLAB further wishes to promote a learning environment in HEIs that is student-centred, innovative and partially digital, that can be used by students in class, out of class and for self-study, thus aiming at broad inclusiveness.

1.2.1 INCOLLAB Open Educational Resources

INCOLLAB OERs, to be made publicly available online on the project's website (<https://incollabeu.wixsite.com/project>)³, combine transversal skills and content-based approaches with foreign language learning and teaching. The OERs are interdisciplinary in nature, which creates opportunities for both foreign language and content lecturers to adapt them to the specific needs of their own classes and contexts (learning a foreign language or using a foreign language as a medium of instruction). They also address the development of transversal skills of students to succeed in a globalised job market. These resources further enable students to individualise and internationalise learning pathways through the promotion of collaborative digital practices. Additionally, some of the OERs are examples of CLIL practice in HEIs and demonstrate, through the uses of communities of practice and learning, how they can best be implemented.

² MIAS School of Business, CTU in Prague (Czech Republic), Budapest Business School (Hungary), Polytechnic Institute of Castelo Branco (Portugal), University of Extremadura (Spain) and University of Algarve (Portugal).

³ See also <https://milage.io> for the digital learning platform being used.

1.2.2 Communities of learning and practice

The first step taken by INCOLLAB to promote its learning environment was to create Communities of Learning and Practice (CoP) within each HEI and across the partner HEIs involved in the project, consisting mainly of 24 content and language lecturers. These multidisciplinary CoPs were created to share disciplinary expertise and knowledge, skills, ideas, and pedagogical approaches; to learn about CLIL and student-centred digitally-enhanced teaching methods and approaches; and to develop online modules as OERs that suit their own situated needs, during face to face and online meetings.

Within the INCOLLAB learning environment, lecturers, by doing some desk research, receiving some specific training (in a 5-day joint training activity that took place at the University of the Algarve in November 2019) and working in international teams were able to: 1) improve their knowledge about CLIL and interdisciplinary collaborative practices, digital learning and transversal skills; and, 2) agree on the specific topics and a common working template for the OERs.

The first main two outcomes of this collaboration were local position papers on how to develop all these aspects in the context of each specific HEI and the *Digital Collaborative Methodological Guidelines* (Morgado *Interdisciplinary Learning and Teaching*)⁴, which were compiled from the position papers.

The next step for the multilingual, international teams that were made up in the joint training event was to get actively involved in planning, designing, piloting, refining, and presenting the final versions of the specific OERs they decided to develop.

The fact that these CoPs are international and have members from several disciplinary areas in HEIs enables the validation of the OERs for several contexts and pedagogical uses. A third important step was to define, validate and harmonise an assessment framework among the participating HEIs to be applied to all OERs in their specificity.

And, finally, case studies of the implementation of the OERs will be conducted. The information provided in the case studies will hopefully offer valuable feedback from the students' and lecturers' involved in the project to other educators and stakeholders and will enable further post project dissemination and the replication of best practice. The concept of case studies is a qualitative, holistic one and the approach to case studies pursued by INCOLLAB is to capture in-depth processes in the CoP establishment, in the OER development, and in the assessment framework application on the one hand, and to

⁴ Available at: https://issuu.com/aagipaal/docs/guidelines_interdisciplinary_learning_and_teaching

detect key aspects in these three areas of interest on the other hand so that further improvement, modification and customisation of the OERs can occur.

Table 1 below summarises the general phases of INCOLLAB.

Table 1. General phases of INCOLLAB

Phase 1	Establishing a CoP (<i>Position Papers & Guidelines</i>)	
Phase 2	Planning, designing, piloting, refining and presenting OERs	
Phase 3		Defining Assessment Framework for OERs
Phase 4		Case Studies

For this paper, we are only covering phases 1 and 2 of the project.

1.2.3 CLIL topics and transversal skills

Content lecturers may differ essentially from foreign language lecturers in HEIs in the sense that the former exclusively focus on the content they wish to impart, while the latter focus on the language of a particular content, if they are teaching LSP. In CLIL, content and language become integrated learning for students and thus it requires an interdisciplinary approach (Morgado and Coelho 3), as well as a student-centred approach, which may raise fears about content not being covered. However, it has to be acknowledged that in CLIL, while students are learning content, they are also learning language: the language 'of' the discipline or field, the language 'for' communicating their process and product of learning, and the language that emerges from the learning contexts the students find themselves in (Coyle, Hood and Marsh 60).

On leaving HEIs, it is increasingly important for students to demonstrate their competence in specific language uses, but also that they have acquired transversal skills they may easily transfer across jobs and fields of work. These skills can address learning and innovation, ICT skills and career-oriented skills (Trilling & Fadel 2009 quoted in Fitzpatrick and O'Dowd 21) or the skills they should employ in their HEIs, such as team work, effective communication skills or problem solving skills, planning and autonomous

learning⁵. Self-directed learning and continuous learning throughout professional life seem to be rated quite highly in the 21st century skills agenda or EU's Key Competences for Lifelong Learning (European Union).

Thus, the OERs to be presented in the next sections deal with learner autonomy, as a concept of a content area (Developmental Psychology), as integrated content and language, and as a transversal skill to be developed by HE students.

1.3 Interdisciplinary collaboration

Interdisciplinary practices in HEIs tend to be hard to reach, but they are not impossible, given the right amount of leadership and management, appropriate skills mix, effective communication, a positive and enabling climate, clarity of a shared vision, and adequate rewards, training and development (Nancarrow, Booth, Ariss, Smith, Enderby, and Roots 6; Zappa-Hollman 601-603).

This is true for the CoPs that have been created nationally and transnationally, in each HEI and among several HEIs within the scope of INCOLLAB. In the first training event of the project, as mentioned before, lecturers had the opportunity to share their theoretical and practical visions of education, learning, as well as their experience in pedagogical and digital innovation. These were further explored through institutional position papers based on focus group discussions on optimal conditions to develop interdisciplinary collaboration, and lastly through (face to face and virtual) group work sessions that congregated groups of lecturers around the same topic they wanted to develop as an OER and pilot in their HEIs.

One of the lessons learnt from the work developed together is that CoPs cannot be imposed top-down. They grow organically from the perceived needs of the lecturers involved and are highly dependent on how the lecturers involved learn to 'navigate' (Pérez-Cañado *Are lecturers ready for CLIL?* 203) and negotiate their collaboration over students' needs, students' knowledge, as well as the content and the language they think students will need to learn in order to perform a task, develop an attitude, or explore a topic, while engaged in designing class materials.

Interdisciplinary collaboration, as we define it, in the first output of INCOLLAB called *Interdisciplinary Learning and Teaching. Digital Collaborative Methodological Guidelines*

⁵ For a discussion of definitions of transversal skills see UNESCO, 2016; Chalkiadaki 2-3; and Chu et al., as well as the Glossary of Education reform list at <https://www.edglossary.org/21st-century-skills/>

(Morgado 6-7), has to be deep-level collaboration among lecturers where lecturers jointly take responsibility for all the learning activities that need to be performed and effectively combine knowledge and skills. This might eventually include co-teaching, though not always or necessarily, although there may be varying degrees of deep collaboration depending on cultural and institutional contexts (Vangrieken, Dochy, Raes, and Kyndt 18).

2. DESIGNING THE OERS

After the *Guidelines* mentioned in the previous section, the second intellectual output of INCOLLAB and, probably, the one around which the whole project revolves, is the design, piloting and revision of 40 innovative online modules in English, Spanish and/or German as a medium of instruction, to be implemented in the five HEIs that take part in the project. In this section, the general principles that informed the design of the modules, mainly set through an action-research process that was developed within a CoP, will be presented. Besides, two specific OERs related to the general topic of 'Autonomy Support' - both as a subject of the area of 'Developmental Psychology' and also as a transversal skill that should be encouraged in university students - will be described in order to illustrate the type of outputs that are derived from the process.

2.1 General principles

As has been mentioned above, the main objective of INCOLLAB is to develop, promote and integrate innovative interdisciplinary, collaborative content-based approaches to language learning and teaching in tertiary education. This aim is mostly achieved through the development of specific OERs in the form of innovative modules that integrate both content and language (English, Spanish and/or German) and are adapted to e- and m-learning blended environments and designed by multilingual, international teams of content and language lecturers. However, the project also establishes several mechanisms that guarantee the quality of modules.

The specific development of the OERs follows a series of steps (see Table 2 below). In the first place, the participating HE lecturers jointly discussed and decided a common, general framework for the design of the modules and worked on the activities in international teams as part of the CoP. A first version of each OER is piloted, revised and refined with the feedback obtained. And, finally, each revised online module, presented by topic, content area and language level, is freely available as OER on the project website and the digital learning platform (MILAGE Learn +).

Table 2. Specific phases in the development of the OERs

Phase 1	Creating common curricular design and early module tasks
Phase 2	Pre-testing selected early module design
Phase 3	Finalising modules
Phase 4	Using modules in blended environments and in self-study
Phase 5	Reporting on and refining modules
Phase 6	Presenting modules by topic, content area and language on the project website and digital learning platform (MILAGE +)

These general principles are discussed in further detail in the next two sections.

2.1.1. *Developing an action-research process within a community of practice*

As reflected in INCOLLAB's *Digital Collaborative Methodological Guidelines*:

Established teaching and learning practices in Higher Education usually include little interdisciplinary collaboration among lecturers, which tends to reflect on student learning as fragmented and safely kept in disciplinary boxes, while specialized work expects team work, interdisciplinary cooperation, and the ability to think cross culturally, communicate and work in more than one language or culture. (Morgado 1)

In order to offer an alternative to this situation, INCOLLAB proposes to encourage, on the one hand, interdisciplinary approaches through CLIL, the integrated learning of content and language, and, on the other, collaboration and coordination among (HE) lecturers in the planning of the lessons and materials they will use to teach their disciplinary subjects through the medium of English, Spanish and/or German. It was agreed that the most suitable environment to foster these practices was a CoP. The concept of CoP, mostly developed on its theoretical grounds by Wenger and inspired by anthropology and social theory, views learning as the relationship between the person and the world. A CoP is conceived as a social learning system with complex relationships and dynamic boundaries in which on-going negotiation of identity and cultural meaning are key elements. As

mentioned above, the implementation of such a mutually enriching organisation cannot be imposed top-down but needs to be voluntarily embraced by its members in order to ensure its success and continuity. In the particular case of INCOLLAB, a series of actions were developed to create and sustain an international CoP (Morgado 9):

- *A joint European Erasmus+ funded project (INCOLLAB) to develop the concept of interdisciplinary collaborative learning and teaching in theory and practice;*
- *A one-week joint staff-training event where all participants (Higher Education subject content and language lecturers) explored theoretical and practical implications of interdisciplinary practice, collaboration, and received some training on the CLIL approach;*
- *Local position papers on optimal conditions to develop interdisciplinary collaboration, CLIL and digital learning in each HEI's context;*
- *The opportunity to develop CLIL lesson sequences (modules) in national and international groups within the local and wider CoPs;*
- *Opportunities for national and international members to meet through physical and virtual meeting spaces;*
- *Opportunities for joint academic publishing of results among the participants of the CoP (as is the case in point for this publication).*

All these actions have allowed our team of HE lecturers to make some concrete, customisable proposals of OERs (see section 2.2 for some examples) adapted to their own contexts, but developed through an action-research process in international, multilingual groups that are expected to be valid in similar contexts.

Module design

Once the working environment was established (CoP), the participants received some training on CLIL and on the learning platform *MILAGE Learn +*. This training was conducted during the 5-day joint staff-training event by a language educator with great expertise on ICLHE and by the developer of the learning platform. The background of the 24 HE lecturers was very heterogeneous as the group included HE content lecturers, language specialists (both LSP and CLIL) and IT experts. This was very enriching but also revealed the need to reach a consensus in the working principles that was established during the initial face-to-face training event and needed to be revised and further developed in the process of developing the OERs. During the joint training activity, the group of HE lecturers agreed on an initial list of topics for the modules as well as on the

basic, conceptual elements needed to be included in the template (see appendices 1 & 2) that would be used for all the OERs.

In relation to the selection of topics, the initial list included the following: 'Sustainability', 'Legal contracts', 'Social media marketing', 'Consumer behaviour', 'Gender issues', 'Resolving conflicts', 'Organizing information visually', 'Communicating financial results' or 'Autonomy Support'. As can be seen, not all these topics are purely disciplinary. 'Autonomy Support' may not only be part of the syllabus of the subject 'Developmental Psychology' in a Psychology programme, but 'autonomy' and 'self-regulated learning' can also be considered as transversal skills to be developed by HE students. In section 2.2., we show concrete illustrations of how to deal with these two different approaches to the topic of 'Autonomy'.

As regards the common template for all OERs, it includes a first section with the basic information of the module: its name and the subject for which it has been designed; the language used and the expected language level of the students; the estimated duration of the module and the instructional format/s to be employed (e.g. face to face, blended or online).

Before listing and describing the activities, there are two sections in the template that are very important from the perspective of an ICLHE approach: the learning objectives (for both content and language) and the target competences (also in relation to the content and the language). As Mehisto, Marsh and Frigols (12) argue, effective CLIL practices need an integration not only of content and language but also of learning skills. In CLIL, content-goals are supported by language-goals but the development of learning skills is the third key element in this triad that also supports language and content learning. In relation to this, there is also a section to include information about how to scaffold the learning process. Scaffolding, a concept related to Vygotskian socio-cultural theories of learning, refers to those instructional techniques, involving learners' interaction with their teachers and peers that aid learners to move progressively toward a better understanding and a greater independence in their learning process (Gibbons 17-18). Within this view, participating in the knowledge practices of a community and being supported by other members are key factors for learning to take place (Lave and Wenger 11). Scaffolding has been shown to be particularly crucial in CLIL contexts (Dafouz, Llinares and Morton 16; Fernández-Fontecha, O'Halloran, Wignell and Tan 2) as learners are not only dealing with new content but also with a new language system.

The remaining sections of the template are devoted to assessment; the recommended aids and tools; the resources and materials employed as well as some final notes for lecturers.

2.2. Illustrating two modules

2.2.1. *Module 1: 'Autonomy Support: Promotion of self-directed learning' (Transversal skill. English level: B1)*

This module (see appendix 1) was originally designed as part of the module 'Autonomy Support: Through collaboration towards self-regulated learning strategies' described below. However, the need to develop the topic of Autonomy Support in the framework of a lower language level with a transversal skill focus was soon recognised, and the module was built up separately. It is designed primarily for first-year university students of any area of study at B1 English language level to promote their awareness towards self-directed learning and enhance their transversal skills development. Concurrently, the module aims at language and ICT skills improvement. The module comprises three sessions subdivided into shorter and longer activities. Students familiarise themselves with the topic of Autonomy Support through a simplified theoretical input appropriate for their language level in form of a video and reading activities, which then serves as a springboard for a series of practical tasks focused on individual real-life learning experience. This involves planning, executing, and presenting a learning activity which is then reflected on, peer evaluated, and modified. The combination of individual and peer work, scaffolding activities and metacognitive processes involved are to enhance critical and reflective thinking, communication and self-motivation, which are the transversal skills the module centres around.

2.2.2. *Module 2: 'Autonomy Support: Through collaboration towards self-regulated learning strategies' (Content Subject: Psychology of Development. English level: B2)*

The second OER (see appendix 2) aims to contribute to the development of the topic 'Autonomy Support: Through collaboration towards self-regulated learning strategies' in the subject of Developmental Psychology through English (as the students' L2) at a B2 level. In terms of contents, the module mostly deals with the theoretical constructs of 'autonomy', 'self-determination theory', 'motivation' and 'self-regulated strategies for self-autonomy promotion'. Students are expected to read a research paper and produce a summary of it, watch some videos and present a case study related to the topic. The integration of these contents and skills with the language needed is achieved by working on two levels. First, on a micro-level perspective, students are invited to do some work on

specific language activities related to the vocabulary and language functions that appear in the research paper, teacher's materials and videos in the project learning platform MILAGE Learn+. Secondly, on a macro-level perspective, learners are offered three optional, self-study, complementary modules developed in the project ICLUEx that was introduced in section 1.1. These complementary modules are focused on academic literacies and that can be used transversally in other content subjects to improve: 1) their understanding and production of definitions, 2) how to write a summary and 3) the language of presentations. Through them, they will develop their reading, listening, writing and spoken production and interaction skills (in accordance with the CEFR guidelines for a B2 level).

3. THE BACKGROUND OF THE OERs PILOTING

The development of OERs in the framework of the INCOLLAB project is a long and complex process that includes several key phases. This part focuses on the pilot stage that establishes space and time to test and try out the created materials/modules across the project CoP in the existing university courses. It is common practice among educators to conduct pilots of new or redesigned educational materials before their release and implementation into a course since this facilitates to critically evaluate the design and delivery process as well as to reflect on the relevance, effectiveness, usefulness and usability of content, tasks and assessment in the particular course context. Thus, piloting has a formative function which is an invaluable component necessary for further development, adjustment and improvement of educational materials.

The INCOLLAB partnership has committed itself to the creation of 40 modules of different length and complexity. Owing to the flexible organisation of the project work, team dynamics and team-member availability and readiness, the OERs are compiled within a longer period of time some being ready for piloting earlier than others. By "ready for piloting" we mean that a team of authors recognises their jointly created teaching and learning resources as a presentable and suitable material for implementation no matter how finalised it is.

The core value of the INCOLLAB OERs, emerging from the nature of all the project educational approaches mentioned above, is their customisability, adaptability and applicability in a large range of educational contexts, which was manifested also in a smaller scale during the piloting which took place in the spring semester 2020.

The following part presents three pilots of two modules dealing with the topic of Autonomy Support which were conducted at two partner HEIs. The common denominator of all three pilots is the fact that they had to be carried out in the online mode as a result of the regulations and restrictions imposed on teaching and learning due to the COVID-19 outbreak. The 'Autonomy Support' modules were deliberately chosen for piloting to help students overcome some challenges of that troubled period of time caused, besides other things, by unexpected and abrupt change of educational patterns. It is also necessary to mention that the pilots were delivered both by the lecturers involved in the Autonomy Support module development as well as by those who work on modules with a different topic focus. The feedback from all participants i.e. lecturers and students was collected at the end of the pilots.

3.1 Pilot 1 and 2 of the module Autonomy Support: promotion of self-directed learning

The module 'Autonomy Support: Promotion of self-directed learning' was piloted with 7 adult students of the Life-Long Learning programme who attended a General English course for primary and secondary school teachers provided by Czech Technical University in Prague. The pilot was integrated into the course running in parallel with other course content and activities, and being evenly distributed into the classes throughout the semester. There was a regular time slot reserved for the module activities in each online class which was organised via MS Teams, and which was shared by two lecturers teaching in the same course. The overall groups' level of English ranged from A2+ to B1.

When implementing the piloting with this group of students, one considerable change to the module activities had to be made soon after the beginning of the pilot. Since the adult students perceived learning online gruelling as such, the activities that had been originally designed to support the skills development via different ICT tools, e.g. MILAGE+ Learn and Trello, were simplified, so that they could be used directly via MS Teams and no other ICT tools were implemented. It is worth mentioning that there were several reasons why the online learning in the course was more than a challenge for these students. Firstly, the majority of them being teachers, they had to start working and teaching online themselves which was the reality never experienced before, and thus extremely demanding for them. Secondly, in many cases, their insufficient ICT equipment and lack of experience hindered them from using the ICT efficiently. Therefore, it was necessary to balance the strenuous situation with the module objectives, and thus creating the piloting activities less stressful

and more enjoyable for the students. Types of activities according to the involvement of the students i.e. individual, peer and group work were carried out as planned and were not much affected by the online form.

The feedback collected from the students and the lecturers showed that the choice and type of activities from the perspective of the language level and content were appropriate for this group. The students valued both the relevance of the activities for their self-development as well as the entertaining nature of some tasks. Additionally, they learnt to visualise their ideas through simple mind maps. The motivation to express their opinions, share them with others in the class, reflect on their own learning, and evaluate pieces of work made by others was high although the students' language knowledge and skills, despite the language support provided, did not allow them to formulate their ideas more precisely and accurately.

Simultaneously, the same module was piloted in the course of Developmental Psychology for first-year bachelor students in Basic Education provided within the teacher-training programmes by the Faculty of Education at Polytechnic Institute of Castelo Branco in Portugal. When implementing the module, the content lecturer felt the need to work in tandem with a foreign language specialist at the level of planning and imparting the lesson sequence that corresponds to the module. As classes are generally conducted in Portuguese, the module was offered as optional content taught in English, which considerably reduced the number of students interested in attending those classes (n=5). Of the five students who showed interest in attending the classes in English, only 2 managed to conclude all tasks and were willing to give feedback on their experience. The level of competence in English of the students involved ranged from A2 to B2.

The feedback from the two lecturers involved in the piloting shows that the distance learning model influenced the strategies and methodologies used to implement the module. Content wise, instead of brainstorming and holding in-class discussions, the main stress was put on delivery of concepts and ideas via PPTs and videos. Contrary to the original plan to involve students in peer and group work, many tasks had to be carried out only on the individual basis. The feedback provided by the students who attended the pilot sessions suggests that despite the restrictions mentioned above, their motivation to actively participate was strong, one of the main reasons being their desire to develop English language skills not only at the academic level, but also in various daily-routine situations.

3.2 Pilot 3 of the module Autonomy Support: Through collaboration towards self-regulated learning

The third pilot was conducted also at Polytechnic Institute of Castelo Branco in Portugal, this time with 52 first-year students of Business English II of the Bachelor degree in Office Management, at the Social Sciences and Education Department. The module piloted deals with Autonomy Support from a different perspective than the one in pilot 1 and 2, which targets more general ideas of autonomy and transversal skills development. This module, having the subtitle *Through collaboration towards self-regulated strategies* in its name, is designed for students of Developmental Psychology and the related areas at B2 English language level. The main module objective is to help students get acquainted with the key theoretical concepts of the Self-determination Theory which they could further apply in their specialised academic practice in an informed and effective way.

Although the main objective mentioned above was maintained, the teacher involved in piloting decided to make pre-pilot changes to adapt the content and some activities to be able to tailor them better to the objectives of the course with Business English and students' interests in focus. The pilot ran in three successive sessions called Introduction, Extension and Consolidation. Compared to the original module, there were some completely new tasks introduced in the piloting, some tasks were simplified or introduced later, and some were fully left out.

Since the module was piloted in the ESP course, the particular stress was put on scaffolding the language development to enhance students' ability to use the appropriate vocabulary in the new context of their learning and on helping students reflect on their autonomy and preparedness for the kinds of learner autonomy expected of them through remote online teaching (as was the situation in that semester due to Covid-19 restrictions). Another key approach was to foster students' ability to clearly differentiate between the use of English in common day language as opposed to its academic use in relation to autonomy. Additionally, the students were exposed to working with various ICT tools such as 'Mentimeter' and 'Kahoot' platforms, which they frequently used in their Business English classes, but for the sake of the piloting activities, it was necessary to feed these tools with the new content, and thus use them in the new learning context.

Feedback from students was fairly positive as to the more academic perspective of this module than the ones they are used to in ESP, although many of them felt it hard to engage in deep thought over the issues proposed for reflection and in reflexive academic writing

about what they had found out about their own autonomy as learners. On the whole, they enjoyed the challenge and said they would welcome more pilots.

3.3 Redesigning, adaptation and customisation of the modules

In view of what was mentioned above, the piloting of the modules facilitated the understanding of key factors that influenced the educational processes involved. The pilots show that there are many variables that come into play and need to be recognised when working with the OERs. These variables can be distributed across three key categories of questions that should be taken into consideration:

1) Who are the lecturers involved in the implementation of an OER?

There are different approaches to be traced in the pilots depending on the fact if the resource was implemented by a content, language or ESP lecturer. Similarly, the approaches differed in to what extent a lecturer was ready and willing to experiment with the resource. This might be influenced by the necessity to adapt the materials to the appropriate context, or by the lecturer's experience of working with OERs or their ICT skills, but also by the language proficiency of a content lecturer on the one hand, and the language lecturer's knowledge of the content on the other hand. Additionally, such factors as if a module was piloted by a single lecturer or it was done in collaboration of two lecturers, significantly affected the realisation of the implementation.

2) Who is the target audience involved in the learning through the use of an OER?

One of the critical moments of an OER implementation is to understand well who the target audience is, what their knowledge, skills and experience considering the course context are. The pilots demonstrated the involvement of three completely different target groups at the HEIs, resulting in the process of customisation of the resources in line with the courses' and students' needs. For example, in pilot 1, instead of forcing the students at A2+ and B1 levels to describe their learning experience in English, which was too difficult to manage at these lower levels, they could enjoy sharing their ideas in their native language (providing the group was linguistically homogeneous) or through simple visual aids.

3) What is the context of the implementation of an OER?

While there are key intrinsic factors such as a course focus and objective, a course type (e.g. mandatory or elective), resources and tools available, and a number of participating students, there are also extrinsic influences, such as Covid-19 restrictions causing the abrupt change in educational patterns also witnessed in the pilots, that may markedly

impact an OER implementation. Therefore, for example, the adaptation of the OERs responding flexibly to the demands of online teaching and learning (including the appropriate choice of ICT tools) is vital for their meaningful and sustainable use.

3.4 Looking ahead – the next stages of the OERs development

In the light of the piloting activities, the OERs in question will be further developed. As mentioned in section 1.1.2 (see also Table 1), the INCOLLAB project comprises four main phases, only phase 1 *establishing the CoP* and phase 2 *the OERs' development* have been the focus of this article as the project is still being developed. The revision of all OERs after the piloting process will involve building upon the existing resources, integrating the feedback provided, reviewing, and suggesting modifications and changes appropriate for the given context of each implementation. Thus, the OERs will enlarge their variability and applicability, which is the aim the INCOLLAB wishes to achieve with all the OERs.

Therefore, the INCOLLAB CoP would like to invite other educators across disciplines interested in such an open and flexible concept of OER development and implementation, to pilot the OERs in their educational context and provide feedback to the authors, and thus contributing to interdisciplinary teaching and learning, collaborative approaches internationalisation of HEIs, innovation, and the overall improvement of HEI pedagogies.

4. CONCLUSIONS

In this article, we have tried to bring to the forefront the importance for HEIs to promote interdisciplinary collaborative practices among its lecturers in order to effectively train their students to the social and economic challenges they will be facing in our globalised societies. We have described how this can be practically achieved by engaging both content and language lecturers in CoP that can help them to discuss innovative learning approaches that are student-centred and enhance the integration of content and a foreign language in a partially digital environment while helping them to develop transversal skills. For some time, we have been witnessing an important change of educational patterns in this direction and, in the present situation, caused by the expansion of COVID-19 worldwide, it seems more necessary than ever to develop teaching resources that are student-centred, interdisciplinary, customisable and partially digital to be exploited in class or worked with out of class and for self-study, thus, covering different possible learning scenarios and allowing students to select their own learning paths.

The two OERs described in this paper together with the discussion in relation to the results of their piloting in three real contexts will, hopefully, encourage HE lecturers to consider the possibility of implementing them in their own classes or to create similar teaching resources in their own educational settings.

In conclusion, this article has aimed at presenting the INCOLLAB project efforts as work in progress with the potential to address the research questions posed in the introduction, and thus resonating with the paradigm shift in teaching and learning approaches in HE.

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EN 1	Autonomy Support/transversal skills	English language	B1 lang. level	Self- study/face2face work/in- class/out-of- class	10 Estimated student work in hrs.
	Content Area/Discipline				
no.	Promotion of self- directed learning			Type of class (F2F, self-study, telecollaboration, etc.)	
	Title				
Learning outcomes Content Language Skills		<i>At the end of this module students will be able to:</i> - Understand specific topics related to Autonomy/Autonomous learning in everyday situations - Know and use specific language in English related to Autonomy/ Autonomous learning in everyday situations - Identify their learning needs, goals, resources and strategies for a specific learning activity of their choice - Describe and analyse their learning process based on a learning log/journal - Evaluate the outcomes of their learning activity - Present their learning activity and outcomes			
Target competences		- Language competence: - reading skills: understanding concepts of Autonomous learning in everyday situations, searching for details - listening skills: understanding pronunciation of difficult and specific words in English related to Autonomous learning - writing skills: expressing opinion/asking for opinion, commenting - speaking and communication skills: using functional language in interaction (introducing oneself, asking and answering questions related to the topic of Autonomous learning, expressing opinion/asking for opinion, giving presentations) - Intercultural skills (if applicable; in a culturally mixed course): awareness			

	<i>raising, recognizing and accepting differences and similarities, communicating at an international/transnational level, empathising, accumulating factual knowledge about other cultures, developing tolerance</i> • <i>Online communication skills: using IT (the Internet, learning and communication platforms and apps)</i> • <i>General working skills: critical thinking</i>
List of activities	Session 1 Self-autonomy promotion in everyday situations Activity 1.1 <i>Oral brainstorming on the concept of Autonomous learning in everyday situations</i> Activity 1.2. <i>Watching video – definition + ethics</i> Activity 1.3. <i>Reading the video transcript and learning/practising the language</i> Session 2 Autonomous learning and five core competences Activity 2.1 <i>Reading about five core competences in Autonomous learning</i> Activity 2.2 <i>Planning one's own learning activity</i> Activity 2.3 <i>Carrying on one's own learning activity</i> Session 3 Presentations and feedback Activity 3.1 <i>Presenting one's own learning activity</i> Activity 3.2 <i>Evaluating and discussing one's own learning activity</i> Activity 3.3 <i>Looking ahead – identifying another learning activity</i>
Activities description (For full versions of the activities see the Students' Template)	Session 1 Self-autonomy promotion in everyday situations Activity 1.1 : <i>Oral brainstorming on the concept of Autonomous learning in everyday situations</i> <i>In this activity, students brainstorm in groups/pairs on the concept of autonomous learning in everyday situations</i> Activity 1.2. <i>Watching video – What is Autonomy? Definition + Ethics</i> <i>Students watch the video and check the comprehension of the key ideas by answering a set of questions.</i> Activity 1.3. <i>Reading the video transcript and learning/practising the language</i> <i>In this set of shorter activities, students read the video transcript with the focus on the language, identifying and learning useful phrases, word formation and practising pronunciation of new and difficult words.</i> Session 2 Autonomous learning and five core competences Activity 2.1 <i>Reading about five core competences in Autonomous learning</i> <i>In this set of activities, students read about five core competences in Autonomous learning to identify the key ideas and check the meaning of the expressions used.</i>

	Activity 2.2 <i>Planning one's own learning activity</i> In this set of activities, students plan and design a visualisation of their own learning activity. Activity 2.3 <i>Carrying on one's own learning activity</i> In this out-of-class activity, students work on their chosen learning activity for one week and create a log in which they describe and analyse their working progress. Session 3 Presentations and feedback Activity 3.1 <i>Presenting one's own learning activity</i> In the class, students present their learning activity. Activity 3.2 <i>Evaluating and discussing one's own learning activity</i> Students hold a feedback discussion about their learning activity with others in the class. Activity 3.3 <i>Looking ahead – identifying another learning activity</i> Based on their previous learning, students start thinking about their next learning activity and discuss it in the class.
Recommended aids/tools	MILAGE Learn+ platform Trello www.trello.com Moodle/MS Teams Video Complementary information: Cambridge webinar – Encouraging Learner Autonomy https://www.youtube.com/watch?v=uN-90zM4KmM
Materials and Resources	The module is divided into the sessions which can be used either as three successive units building upon each other or can be used/taught separately.
Assessment	<i>The assessment in this module should be formative with the focus on self-assessment. The following activities can be used to monitor student progression in learning.</i> ✓ language learning: a) completion and marking of 1.2 and 1.3.2 a-h (on MILAGE Learn+) b) expressing opinion, asking for opinions, presenting ✓ self-assessment of autonomous learning processes using the following rubrics: <i>I managed to identify my own learning needs. (1-4 pts.)</i> <i>I managed to set learning goals to address those needs. (1-4 pts.)</i> <i>I managed to identify suitable resources to help me achieve my learning goals. (1-4 pts.)</i> <i>I managed to apply appropriate learning strategies. (1-4 pts.)</i> <i>I managed to evaluate the outcomes of my learning. (1-4 pts.)</i> ✓ peer feedback ✓ teacher feedback

Learning process scaffolding	<i>The learning process is scaffolded by a succession of activities in each session. The language activities help scaffold the content of the module.</i>
Notes for teachers	<i>Recommendations for teachers: This module was developed in collaboration of content and language teachers. As it deals with general aspects of autonomy learning and supports autonomy at any stage of learning, it can be used in any discipline and course with the aim of developing autonomy as a transversal skill.</i>



Interdisciplinary Learning & Teaching

Collaborative Approaches

BBS • IPCB • UALG • UEx • MIAS-CTU

Co-funded by the
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EN_ UEx MIAS -CTU IPCC	Developmental Psychology. Autonomy Support	<i>English</i>	<i>B2</i>	<i>face2face self-study/</i>	In- class: 5 sessions (90 min. each)+ Out of class 5 hours (+ 10 opt.l work)
	Name of the module				
no.	Through collaboration towards self- regulated learning strategies	language	lang. level	Includes telecollaboratio n	Estimate d student work in hrs
	Subtitle				
Learning objectives: Content/Language		This module aims to contribute to the development of the topic 'Autonomy Support: Through collaboration towards self-regulated learning strategies' in the subject of Developmental Psychology through English (as the students' L2) at a B2 level. In terms of contents, the module mostly deals with the theoretical constructs of 'autonomy', 'self-determination theory', 'motivation' and 'self-regulated strategies for self-autonomy promotion'. Students are expected to read a research paper and produce a summary of it, watch some videos and present a case study related to the topic. The integration of these contents and skills with the language needed is achieved by working on two levels. First, on a micro-level perspective, students are invited to do some work on specific language activities related to the vocabulary and language functions that appear in the research paper, teacher's materials and videos in the project learning platform MILAGE Learn +. Secondly, on a macro-level			

	perspective, learners are offered three self-study ‘mini’-modules (OERs developed in the project ICLUEx ) to improve: 1) their understanding and production of definitions, 2) how to write a summary and 3) the language of presentations. Through them, they will develop their reading, listening, writing and spoken production and interaction skills (in accordance with the CEFR guidelines for a B2 level). Students are also invited to work on the development of concept maps. In terms of contents, at the end of this module students will be able to: 1. Define the concept of ‘autonomy’ 2. Identify the theoretical context in relation to: • Self-determination theory • Intrinsic motivation (Deci) 3. Identify learning implications regarding autonomy support 4. Assess levels of autonomy in potential autonomy support activities/situations 5. Develop self-regulated strategies for self-autonomy promotion In terms of language, at the end of this module students will be able to understand and produce written and oral input related to the content objectives.
Target Competences Language/Content	As part of the activities of this module, students will read a research paper and produce a summary of it, watch some videos and present a case study related to the topic. In terms of language, they will be working on the following skills (CEFR B2 level) and expected to: 1. Reading skill (relating to the research paper): a) CEFR B2 level: Reading for orientation -scan quickly through long and complex texts, locating relevant details. -identify the content and relevance of articles on professional topics, deciding whether closer study is worthwhile. b) CEFR B2 level: Reading for information and argument -obtain information, ideas and opinions from highly specialised sources within his/her field. -understand articles and reports concerned with contemporary problems in which the writers adopt particular stances or viewpoints. 2. Writing skill (related to their summaries) a) CEFRL B2 level: Written reports and essays -synthesise information and arguments from a number of sources. 3. Listening skill (in relation to the videos) a) CEFR B2 level: Listening to audio media and recordings -understand recordings in the standard form of the language likely to be encountered in social, professional or academic life and identify speaker viewpoints and attitudes as well as the information content.

	4. Speaking skill (related to their own spoken production in their oral presentation) a) CEFRL B2 level: Sustained monologue: Giving information -Can communicate complex information and advice on the full range of matters related to his/her occupational role. 5. Interaction (related to the presentation of their 'case studies' in their own class or through a virtual exchange) a) CEFR B2 level: Spoken interaction: Information exchange -Can use appropriate technical terminology, when exchanging information or discussing his/her area of specialisation with other specialists. b) CEFR B2 level: Spoken interaction: Online conversation and discussion -Can participate actively in an online discussion, stating and responding to opinions on topics of interest at some length, provided contributors avoid unusual or complex language and allow time for responses. c)CEFR B2 level: Mediating communication: Facilitating pluricultural space - Can work collaboratively with people who have different cultural orientations, discussing similarities and differences in views and perspectives.
List of activities	Session 1. Introducing basic concepts <u>I. Activity 1 (face2face).</u> Warm-up activity to check previous concepts on 'Autonomy' in general and in the field of psychology. Video 1 <u>II. Activity 2 (face2face).</u> Content. Teacher presents the main concepts to be discussed in this module through a mind-map and/or a PowerPoint presentation <u>III. Activity 3 (in class through MILAGE+).</u> Assessment. Checking for comprehension of the contents by the teacher. Multiple-choice questions (MILAGE) <u>IV. Activity 4 (self-study)</u> Homework: Read a research paper. Self-study on "Understanding and writing definitions" (Mini-module ICLUEX , optional) Time devoted to this session: 1.30 hours in class /1-2 hour of students' work ***** Session 2. Extension <u>I. Activity 1 (face2face).</u> Warm-up activity. Evocating the contents of the previous session. <u>II. Activity (face2face).</u> Content. Teacher elaborates on some of the key

concepts of the topic.

III. Activity 3 (face2face). **Assessment.** Jigsaw/puzzle activities. Discussion. Self-/Peer-assessment.

IV. Activity 4 (self-study) **Homework:** Language tasks + Kahoot created by the students.

Time devoted to this session: 1.30 hours in class /1-2 hour of students' work

Session 3. Consolidation

I. Activity 1 (face2face). **Warm-up activity:** Kahoot activity created by the students + Brainstorming from research paper (Deci and Ryan 2008).

II. Activity 2 (face2face). **Content.** Video 2

III. Activity 3 (face2face). **Content.** Group work on key concepts.

IV. Activity 4 (start in class and finish as Homework). **Content and assessment.** Summaries (peer-assessment).

IV. Activity 5 (self-study) **Homework:** Self-study on "Writing summaries"

(Mini-module ICLUEx , optional)

Time devoted to this session: 1.30 hours in class /1-2 hour of students' work

Session 4. Revision

I. Activity 1 (face2face). **Warm-up activity:** Video 3

II. Activity 2 (face2face). **Content.** Writing a synthesis of key subtopics

III. Activity 3 (face2face). **Assessment.** Elaboration of a concept map about the main theoretical concepts discussed in the module.

IV. Activity 4 (self-study). **Homework.** Self-study on "Concept Maps" (Mini-module ICLUEx, optional)

V. Activity 5 (face2face). **Content.** Start preparing the presentation of a case study: a situation (problem scenario) in which somebody has to confront problems of autonomy, providing a solution. E.g. "A student starting university for the first time, s/he does not know anybody in a new school and town/city..."

VI. Activity 6 (self-study). **Homework.** Self-study on "The Language of

Presentations" (Mini-module ICLUEx , optional)

Time devoted to this session: 1.30 hours in class /1-2 hour of students' work

	***** Session 5. End-of-module task <u>I. Activity 1 (face2face -if presented in their own classroom- or telecollaboration -if carried out as a virtual exchange).</u> Assessment. Students present their case studies (in their own classrooms or to other international students through a virtual exchange). Teacher assessment and peer-assessment (optional)
Activities description	Session 1. Introducing basic concepts <u>I. Activity 1 (face2face).</u> Warm-up activity to check previous concepts on 'Autonomy' in general and in the field of psychology. (10 minutes) 1. Watch video 1 (Autonomy: Definition and Ethics) https://study.com/academy/lesson/what-is-autonomy-definition-ethics.html Questions to check comprehension (MILAGE+) 15 minutes a) Which two examples of daily situations in which you show your autonomy are given in video? b) Is it possible to develop autonomy while you are growing up? (Yes/No) c) Autonomy is a) The power to make our own decisions without the interference from others b) The power to do whatever you want c) The capacity to negotiate with others to reach agreements. d) Does autonomy only reflect on a personal level? (Yes/No) e) Name other contexts on which autonomy reflects 2. Brainstorming (face-to-face, whole group) a) 'What does autonomy mean for you in your daily life?' b) 'What does autonomy mean for you when you are learning?' c) 'What does self-autonomy mean in Psychology?' (Trello. Two columns one for each question) <u>II. Activity 2 (face2face).</u> Content. The teacher presents the main concepts to be discussed in this module: 1. Through a 'mindmap' that defines the concepts of 'autonomy', 'competence' and 'relatedness' and their importance for 'motivation' Mindmap1 (https://view.genial.ly/5e58e17d34f73c0fdb47f9aa/interactive-content-mindmap-1-vf-autonomy-support) We suggest starting by asking the students to match the definitions with each of the concepts. 2. The teacher supports her/his presentation in a power point with the following structure and content organized in topics: Introduction - SDT in academic context

Why are some students more engaged in and adjusted to school than others? Why are some students more competent and why do they perform better than others?

Self-determination theory is a theory of human motivation to explain students' classroom behavior, learning process, and relationship with the environment.

Students usually display different attitudes in the classroom. Sometimes, they may be active and cooperative, and sometimes they may adopt passive and reluctant attitudes. Within the framework of the self-determination theory (SDT; Deci & Ryan, 1985, 2000), Reeve (2006, 2009) has explained how students' behavior and feelings depend on social factors such as the teachers' attitudes. The class environment generated by the teacher is an essential element to explain students' motivation and emotions.

1. Definitions: Intrinsic, extrinsic and autonomous motivation

The intensity with which adolescents study, as well as why they study, may be relevant because people not only vary in the amount of an activity they perform, but also in the types of motivation to perform it (Ryan & Deci, 2000a). In the educational context, intrinsic, and extrinsic motivation are two key aspects (e.g., Habgood & Ainsworth, 2011; Lepper, Corpus, & Iyengar, 2005).

- ☐ Intrinsic motivation is characterized by satisfaction, interest, and pleasure when performing an activity.
- ☐ Extrinsic motivation is defined by low levels of satisfaction and consists of engaging in behaviors due to external reinforcement such as obtaining a reward or internal pressures such as avoiding feeling guilty.

External rewards can shift the perceived locus of causality from internal to external, there by diminishing intrinsic motivation. However, providing meaningful choices would have the opposite effect, increasing intrinsic motivation.

The second process consists of enhancing competence: if students feel more competent, their intrinsic motivation will increase.

- ☐ Autonomous motivation means that students engage voluntarily in the learning process, that is, the individual is the origin of his or her actions. Within SDT, acting autonomously implies being self-governing and the initiator of one's own activities (Gillet, Vallerand, & Lafrenière, 2011). Actions are engaged in freely based on one's values and interests; these individuals perceive an internal locus of causality of their actions (deCharms, 1968). Autonomy is not the same as independence because a person may be voluntarily dependent or forced to rely or depend on others (Ryan, La Guardia, Solky-Butzel, Chirkov, & Kim, 2005).

2. Basic Psychological Needs Theory

The basic psychological needs theory (BPNT) is a minitheory stating that the fulfillment of the three basic psychological needs – autonomy, competence, and relatedness – will affect one's tendencies toward the integration of a priori external regulations, leading to a sense of wellbeing. Therefore, environments that support these needs (instead of thwarting them) will have a positive effect on well-being. These needs are innate, universal, and essential for growth, well-being, and personal and social development (Ryan & Deci, 2000b), regardless of gender, social class, or cultural context (Vansteenkiste, Niemiec, & Soenens, 2010).

a) Autonomy: The need for autonomy refers to the experience of will and psychological freedom and is determined by the level of external pressure when performing an action (deCharms, 1968; Deci & Ryan, 1985).

b) Competence: The need for competence implies that individuals want to interact effectively with their environment in order to feel capable of producing desired outcomes and preventing undesired ones (Connell & Wellborn, 1991).

c) Relatedness: the need for relatedness refers to the desire to feel connected with, and mutually supportive of, significant to others.

3. Autonomy Support

Autonomy support is the interpersonal behavior teachers provide during instruction to identify, nurture, and build students' inner motivational resources (Deci & Ryan, 1985; Reeve, Deci, & Ryan, 2004). Thus, autonomy support refers to an atmosphere where students are not pressured to behave in a specific way, and where they are, instead, encouraged to be themselves (Ryan & Deci, 2004).

Deci, Eghrari, Patrick, and Leone (1994) argue that three interpersonal conditions are necessary for individuals to feel that their autonomy is supported: providing meaningful rationale (i.e.,

verbal explanations that help others to understand why self-regulation of the activity would have personal utility), acknowledging negative feelings (i.e., tension-alleviating acknowledgment that one's request to others clashes with their personal inclinations and that their feelings of conflict are legitimate), and using noncontrolling language (i.e., communications that minimize pressure, absence of the terms "should," "must," and "have to," conveying a sense of choice and flexibility in the phrasing). New interpersonal conditions based on the theory have been added to the definition of autonomy support, such as: offering meaningful choices (i.e., providing information about options, encouraging choice-making, and initiation of one's own action) and nurturing inner motivational resources (i.e., reinforcing the other's interest, enjoyment, psychological need satisfaction, or sense of challenge or curiosity while engaging in a requested activity)

III. Activity 3 (in class through MILAGE). Assessment. Checking for comprehension of the contents by the teacher. Multiple-choice questions (MILAGE+) 5-10 minutes.

Question 1. Answer the following questions:

- a) What does SDT stand for?
- b) What does BPNT stand for?
- c) Who are two most cited authors/researchers connected with these theories?

Question 2. Are the following statements true or false? If false, explain why they are incorrect.

- a) Self-determination theory is a theory which explains students' competence in the classroom.
- b) Autonomy support refers to an atmosphere where students are not pressured to behave in a specific way, and where they are, instead, encouraged to be themselves.
- c) For individuals to feel that their autonomy is supported it is necessary to use the terms "should," "must," and "have to."

IV. Activity 4 (self-study) Homework:

1. Students must read the article by Deci & Ryan (2008), focusing on the definitions of key concepts
2. Complete the mini-module "Understanding and writing definitions" (optional)

Time devoted to this session: 1.30 hours in class / 2 hours of students' work

Session 2. Extension

I. Activity 1 (face2face). Warm-up activity. Evocating the contents of the previous session (e.g Self-determination Theory, Autonomy, Intrinsic, Extrinsic and Autonomous motivation). This can be done as a 'brainstorming', oral activity in class or as an online activity to match the concepts with their definitions through 'Quizlet'.

II. Activity (face2face). Content. Teacher elaborates on some of the key concepts of the topic:

1. Through a 'mindmap' that defines the concepts of 'amotivation', 'extrinsic' and 'intrinsic motivation', 'types of regulation'....

Mindmap 2 (<https://view.genial.ly/5e57ee723ca5910fdcf0fc4b/horizontal-infographic-review-mindmap-2-autonomy-support>)

It can be also done as a collaborative activity in which the teacher presents the map with some gaps and asks the students to complete them

III. Activity 3 (face2face). Assessment. Group work and discussion.

In groups, students choose three of the main concepts and provide definitions for each of them. Each group presents one (or more if time allows) of their definitions to the rest of the class. The whole group votes for the best definition of each concept.

An alternative online version in 'Moodle' of this activity could be done by creating a glossary and voting for the best definitions in a forum.

IV. Activity 4 (self-study) Homework:

Language tasks (Exercises 3-15 on MILAGE Learn+)

Exercise 3 Based on the text, match the first part of the expression from the left-hand box with the second part on the right.

1	classroom	A	positive effect
2	interpersonal	B	Factors
3	have	C	meaningful choices
4	Psychological	D	choice-making
5	Offer	E	Behaviour
6	Encourage	F	Conditions
7	Learning	G	Process
8	Social	H	Freedom

Exercise 4 Complete each sentence with a suitable word from the box.

Needs	aspects	Connecte d	Environm ent	interact	competen t
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- The class _____ generated by the teacher is an essential element to explain students' motivation and emotions.
- Autonomy, competence, and relatedness are three basic psychological _____.
- If students feel more _____, their intrinsic motivation will increase.
- The need for relatedness refers to the desire to feel _____ with, and mutually supportive of significant others.
- In the educational context, intrinsic and extrinsic motivation are two

key _____.

- f) The need for competence implies that individuals want to _____ effectively with their environment in order to feel capable of producing desired outcomes and preventing undesired ones.

Exercise 5 Complete the sentences with the missing prepositions.

- a) Students' behavior and feelings depend _____ social factors such as the teachers' attitudes.
 b) A person may be voluntarily dependent or forced to rely _____ others.
 c) The second process consists _____ enhancing competence.
 d) Tension-alleviating acknowledgment that one's request to others clashes _____ their personal inclinations.
 e) Why are some students more engaged _____ and adjusted _____ school than others?

Exercise 6 Match the beginning of each sentence with the most appropriate ending.

1	Extrinsic motivation is defined by	A	based on one's values and interests.
2	Autonomous motivation means	B	implies being self-governing and the initiator of one's own activities
3	The three basic psychological needs (autonomy, competence, relatedness) are	C	that students engage voluntarily in the learning process.
4	Actions are engaged in freely	D	satisfaction, interest, and pleasure when performing an activity
5	Intrinsic motivation is characterized by	E	low levels of satisfaction.
6	Acting autonomously	F	innate, universal, and essential for growth, well-being, and personal and social development

Exercise 7 Here are two examples of nouns ending with -ment. Find four more examples in the text.

Development, enjoyment, _____, _____, _____, _____.

Exercise 8 Fill in the missing forms. Do not fill the shaded boxes. Use a dictionary if necessary.

Noun	Verb	Adjective	adverb
		Competent	
	behave		
Autonomy			
Intensity			
motivation			
	grow		
	support		
		voluntary	
performance			
		varied	
satisfaction			
		pleased/pleasant	
self-government			
		effective	
perception			

Exercise 9 Choose the correct word in each sentence.

- Autonomy support is the interpersonal *condition/behaviour/ request* teachers provide during instruction.
- The class environment generated by the teacher is an *noncontrolling/cooperative/ essential* element to explain students' motivation and emotions.
- The need for autonomy refers to the experience of psychological freedom and is determined by the level of external *pressure/choice/outcomes* when performing an action.
- These needs are *inner/innate/independent* and essential for growth, well-being, and personal and social development.

Exercise 10 Based on the text, match the first part of the expression from the left-hand box with the second part on the right.

1	feeling of	A	will
2	origin of	B	conflict
3	locus of	C	needs
4	experience of	D	actions
5	fulfillment of	E	causality

Exercise 11 Answer the following questions about the vocabulary used in the text.

- British English spelling is *behaviour*, the American variety is *behavior*. Similarly, the British variety uses the spelling with one "l" *fulfilment*, American English uses "double l" *fulfillment*. Which

- spelling is used in the text, British or American?
- b) The word *will* appears in the text as a noun and a verb. What do they mean?
- c) Verb _____
- d) Noun _____
- e) What does the word *framework* mean?
- f) What does the word *curiosity* mean? What is the adjective form?

Exercise 12 Can you complete each of these word forks?

a)			d)	
Enhance			display	
Support			adopt	
b)			e)	
	Guilty			support
	competent			choice
				rationale
				information
c)				
	challenge			
	well-being			
of				
	Choice			
	Flexibility			

Exercise 13 Find words in the text for the following.

- a) The opposite of **extrinsic**. _____
- b) The opposite of **dependent**. _____
- c) The opposite of **increase**. _____
- d) The opposite of **inner/internal**. _____
- e) The synonym of **passive**. _____
- f) The synonym of **freely**. _____

Exercise 14 Notice the use of the following linking words in the text. Then match them with their meaning.

1	However	A	In this way
2	While	B	Not being affected by something
3	Thus	C	Although; to make comparison
4	Regardless	D	For that reason
5	Therefore	E	Despite this; to present an argument against something

Exercise 15. Based on your language and vocabulary learning, create an exercise with 5 items for other classmates to check in KAHOOT.

Session 3. Consolidation**I. Activity 1 (face2face). Warm-up activity:**

1. Start with the Kahoot activity created by the students
2. Brainstorming from the reading (Deci and Ryan) to revise concepts

II. Activity 2 (face2face). Content. Watching the video to elicit new ideas.Video 2: <https://www.youtube.com/watch?v=6hTbz-ABgDw>)

III. Activity 3 (face2face). Content. Organized in small groups, students will analyse the concepts of intrinsic and extrinsic motivation and identify examples of behaviours associated with intrinsic and extrinsic motivation in their daily lives.

IV. Activity 4.(Start in class and finish as Homework). **Content and assessment.** Write individual summaries on intrinsic and extrinsic motivation. Share them through MILAGE Learn + (as photos) and peer-assess.

V. Activity 5 (self-study) Homework: Complete the module “Writing a summary of a research paper” (optional)

Session 4. Revision**I. Activity 1 (face2face). Warm-up activity:**Video 3: <https://www.youtube.com/watch?v=3sRBBNkSXpY>

First, listening to the audio with no images a couple of times and ask them to schematically represent what they are hearing.

II. Activity 2 (face2face). Content. Writing a synthesis of the following subthemes (key subtopics):

- a) Basic Psychological needs
- b) Causality orientation
- c) Aspirations or life goals
- d) Newer Development

Do it as a cooperative writing task. Divide the class into four groups. Each group is assigned a subtheme and they have to write a summary, first, and, after that, present it to the rest of the class.

III. Activity 3 (face2face). Assessment. Show them the initial video with images and at the end, individual elaboration of a conceptual map about the main theoretical concepts discussed in the module. Discussion. Self-/Peer-assessment.

IV. Activity 4 (self-study). Homework. Self-study on “Concept Maps” (Mini-module ICLUEX, optional)

V. Activity 5 (face2face). Content. Start preparing the presentation of a case study: a situation (problem scenario) in which somebody has to confront problems of autonomy, providing a solution. E.g. “A student starting university for the first time, s/he does not know anybody in a new school and town/city...”)

1. Reading and comprehension of the **first case study: Rachel's dilemma:**

Case study 1

Rachel's dilemma

Rachel has recently left her parents' house to attend university in a city 50 km far away from home.

Despite having managed to enter the course and university of her choice, having been proud and enthusiastic during the 1st month of attending higher education, she has been feeling progressively worn out, unwilling to get up to go to classes, with insomnia and lack of concentration. Despite being in the university residence, a space shared with several classmates, she has refused some invitations to go out and socialize, feeling progressively more and more alone. In the last week, the days were spent talking on the phone with her mother who has tried to motivate her, asking her not to give up on her dream...

1. Read the text and complete the following exercises (individually)

A. “(...) she has been feeling progressively **worn out** (...)”

Circle the adequate synonym for the expression in bold:

a. exhausted b. unhappy c. ill d. impatient

B. Match the following health expressions with their meaning:

if the person says...	...it means:
a. I feel completely worn out .	1. loss of appetite
b. I've been feeling off-colour for two days.	2. decrease in weight
c. I've been off my food for days.	3. loss of energy
d. I've put on a few kilos in the last year.	4. general feeling of being unwell
e. I've lost a lot of weight recently.	5. hard, infrequent faeces.
f. I've been quite constipated lately.	6. increase in weight

C. Find words in the text for the following definitions:

a. somewhere else, or to or in a different place, position, or situation	
b. to spend time when you are not working with friends or with other people in order to enjoy yourself	

c. to cause someone to behave in a particular way	
d. the fact that something is not available or that there is not enough of it	
e. showing enthusiasm	
f. without other people	

Key:**1** a**2**

a-3, b-4, c-1, d-6, e-2, f-5

3

a- far away b- socialise c- motivate d- lack e- enthusiastic f-alone

2. Analyse and answer the last following questions (in small groups):

-How do you interpret Rachel's feelings and behaviour?

- Do you consider that Rachel is having difficulties in dealing with the responsibility of managing her autonomy? Justify your opinion.

- Identify three behaviours that Rachel could adopt to face the difficulties felt.

This can also be done as a cooperative writing task. Divide the class into small groups. Each group reads and analyses the case study, while trying to answer the questions. After that, each group presents its answers to the rest of the class.

VI. Activity 6 (self-study). Homework. Self-study on “The Language of Presentations” (Mini-module ICLUEx , optional)

Session 5. End-of-module task

I. Activity 1 (face2face). Warm-up activity: Presenting the second case study (*John's concerns*) by using a power point with illustrations created for this purpose.

Case study 2**John's concerns**

John is an only child and throughout his school career, always marked by success, he had the support of his parents and of a private teacher to solve the tasks and difficulties of the different school subjects.

Currently, he attends the 1st year of a degree in Law and he is confronted for the first time with academic failure, since he was unable to take two course subjects of the first semester.

	<i>This situation is making John very anxious and without the needed courage to communicate with his parents about the difficulties experienced. He feels insecure, unable to find strategies to deal with the situation...</i> 1. Analyse and answer the last following questions (in small groups): - Identify 3 strategies and/or behaviour that would allow John to be more successful. - Identify the strategies you normally use to overcome the difficulties experienced in learning different course units. <i>II. Activity 2 (face2face). Content:</i> Based on this case study, students will create their own case in small groups. They will also formulate a question about it to ask their colleagues. <i>III. Activity 3 (face2face). Assessment:</i> Discussion. Self-/Peer- assessment.
Recommended aids/tools	MILAGE Learn+ Trello: www.trello.com Kahoot Moodle (optional)
Materials and Resources	For content: -Video 1: https://study.com/academy/lesson/what-is-autonomy-definition-ethics.html -Mindmap 1: (https://view.genial.ly/5e57ee723ca5910fdcf0fc4b/horizontal-infographic-review-mindmap-2-autonomy-support) -Article: Deci, E. L. & R. M. Ryan (2008). Self-determination Theory: A Macrotheory of Human Motivation, Development, and Health. <i>Canadian Psychology</i>, 49 (3), 182-185 - Mindmap 2 (https://view.genial.ly/5e57ee723ca5910fdcf0fc4b/horizontal-infographic-review-mindmap-2-autonomy-support) - Video 2: https://www.youtube.com/watch?v=6hTbz-ABgDw) For language: -Micro-level: Language Tasks on MILAGE Learn + Macro-level: Mini-modules ICLUEX ) : 1. "Understanding and writing definitions" 2. "Writing Summaries" 3. "Concept Maps": 4. "The Language of Presentations"
Assessment	The type of assessment conceived for this module is formative and continuous and has been illustrated in the main tasks. Not only the assessment provided by the instructor but also peer-assessment is important in the development of the contents of this module (e.g. in the presentation of the "Case studies"). In relation to language, peer-assessment is also present at the micro-level in the work carried out in the platform

	MILAGE Learn+. Finally, students are invited to work on their own in the mini-modules that include self-assessment in all cases and the possibility of peer-assessment, too.
Learning process scaffolding	The learning process is scaffolded in the sequenced activities designed for each section and in the global lay-out of the module that gradually develops the main concepts to a higher level of complexity. The use of visuals (videos, mindmaps) as well as the active participation of the students in the great majority of the activities proposed facilitates their understanding of the contents.
Notes for teachers	This module was developed by content lecturers, language specialists and language educators and was conceived as an interdisciplinary, student-centred, customisable and partially digital module to be exploited in class or worked with out of class and for self-study, thus, covering different possible learning scenarios and allowing students to select their own learning paths. It includes some OERs from a research project (ICLUEX, for further details, see https://l2earnuex.wixsite.com/icluex) in which some of the lecturers that designed this module are also involved.

Storytelling Techniques Through ICT and CLIL to Stimulate Second Language Output: An Innovative Proposal

Técnicas de *storytelling* a través de las TIC y AICLE para estimular la producción lingüística en la segunda lengua: Una propuesta de innovación

Mercedes Pérez Agustín
UNIR, Spain
mercedes.perez@unir.net

Louisa Mortimore
UNIR, Spain
louisa.mortimore@unir.net

Abstract

The flexibility of CLIL, together with the need for scaffolding tools, lends itself to the incorporation of diverse ICT in the bilingual classroom. In this context, digital storytelling may be incorporated as an additional tool in the CLIL teacher's toolbox to stimulate foreign language output. This article will analyze the potential benefits of introducing storytelling techniques through the online software, *Storyjumper* following the "story mountain" format consisting of beginning, climax and resolution. The quasi-experimental study has been carried out in two classes of 5th Primary in Spain through Google Classroom and Meet with two main goals: foster creativity, which may lead to unguided language output in learners of an additional language and stimulate oral and written language production.

Keywords: CLIL, digital storytelling, ICT, bilingual education, language output.

Resumen

La flexibilidad de la metodología AICLE junto a la necesidad de herramientas de andamiaje facilitan la incorporación de distintas TIC en el aula bilingüe. En este contexto, el relato

digital debería ser incorporado como una herramienta adicional de los profesores de AICLE para estimular la producción de la lengua extranjera. En el siguiente artículo analizaremos los beneficios potenciales de las técnicas de narración a través del software en línea, *Storyjumper*, siguiendo el formato de las historias compuestas por una introducción, un nudo y un desenlace. El estudio cuasiexperimental se ha llevado a cabo en dos clases de 5º de primaria a través de Google Classroom y Meet con dos propósitos: fomentar la creatividad, que podría traer consigo una producción lingüística no guiada en los alumnos cuya segunda lengua es el inglés y estimular la producción oral y escrita.

Palabras clave: AICLE, relato digital, TIC, educación bilingüe, producción lingüística

1. INTRODUCTION

Storytelling is the ability to tell a story dramatizing and using your body language for the audience to take part (Aparicio and Pérez 20). It is frequently used as “a means of instruction mainly addressed to the preschool stage” (Farrell *Storytelling: A Guide for Teachers* 38).

Through this study, we aim to highlight the potential benefits of storytelling within Primary education, in this case through English as an additional language using ICT. Storytelling has been used because, as (Collins & Copper 9-10) emphasize, this technique may aid the development of complex cognitive structures which, in turn, aid foreign language learning and the use of communication strategies. The use of these strategies can enable the learner to express themselves despite not having the necessary language knowledge to do so (Mariani 6).

This study, furthermore, draws on the use of digital storytelling. As (Robin and Pierson 1-8) believe, digital storytelling has captured the imagination of both students and teachers and the act of crafting meaningful stories has elevated the experience for students and teachers. As highlighted by Lynch and Fleming:

The flexible and dynamic nature of digital storytelling, which encapsulates visual and sensory elements, utilizes the multitude of cognitive processes that underpin learning-from verbal linguistic to spatial, musical, interpersonal, intrapersonal, naturalist and bodily-kinesthetic (7).

2. STORYTELLING IN CLIL

Storytelling can be a pleasurable experience; often managing to captivate the audience through the use of images and voices, which may aid assimilation of the message. These features constitute a useful resource for foreign language learning, as they act as scaffolding, thereby facilitating understanding of new language input (see, for example, Gibbons 96-126). Further scaffolding may be achieved through developing cross curricular skills and the integration of different school subjects which, rather than treating content as an isolated fact, considers it as part of a real context, integrated with other disciplines and applicable to the outside world. This approach, sometimes known as *pluriliteracies* (Coyle 277-297) is used to foster greater assimilation of content and deeper learning. The use of stories within a CLIL learning context can be analyzed through the 4 C's, which refer to Content, Cognition, Communication and Culture:

1.Stories to introduce content: they can encourage active engagement within different disciplines such as Science, History, Geography, leading to integrated knowledge and the possibility of deeper learning (Meyer & Coyle 199-222).

2.Stories through cognition: writing stories may enable learners to develop and associate previous schema with new events, thus providing a means to new-concept acquisition which, "creates specific neural wiring that supports schema or skills formation" (Jackson *The pedagogy of confidence: Inspiring high intellectual performance in urban schools* 96). Furthermore, as (Kellerman 139-258) and (Meyer 195-215) state, stories present multiple shapes, from the linguistic and the semantic perspective, which can be complemented with the use of images and sounds.

3.Stories to foster communication: stories increase the students' ability to introduce and use contextualized new vocabulary. Moreover, their use of images, sounds and appealing topics potentially awaken students' interest, creating verbal or non-verbal reactions in their audience.

4.Stories to introduce culture: Stories are an accessible means of introducing pupils to other countries, cultures and values, offering a richer vision of the world. The introduction of culture in the foreign language classroom can be reinforced by the use of ICT (Dema & Moeller 75-91).

3. DIGITAL STORYTELLING

The term digital era refers to students having their own capability to construct a given future, able to express what they know while using their knowledge critically and creatively.

Within a CLIL learning context, the incorporation of ICT has been documented to notably enhance acquisition of social, cultural and communicative skills (García Laborda 101-117; Livingstone 9-24; Milán 79-98). This is arguably in line with research, which has shown CLIL learners to display a higher digital competence than non CLIL learners (Nieto Moreno de Diezmas 25-85). Furthermore, the successful use of technological tools and digital resources in the classroom can create a more dynamic learning environment favoring the incorporation of other methodologies such as, for example, project based, cooperative and active learning.

Digital storytelling (DST) is the process of creating a short and engaging story which combines different technological modes such as pictures, sounds, texts and narration. DST weaves with traditional narrative because it includes all the components of traditional stories: scene, plot, characters, topic, conflict and resolution of the problem. Alexandre and Levine describe it as:

A collection of pauses, to let the audience think or to indicate a change in the topic; interruptions, to indicate excitement; the ending of a topic before its full resolution, to produce a cliff hanger; vocal intonation, pacing, and pitch; sound effects and music (54).

As opposed to storytelling, which offers a rich listening and communicating experience, DST is a more visual experience, scaffolding understanding and thereby reaching a wider audience. However, certain elements need to be considered when creating a digital story. An engaging digital story needs to attract the attention of the audience from the outset, often starting with an opening hook, question or hypothesis to “grab” the reader’s attention, requiring the reader to continue reading to find out more and/or solve the mystery. Since stories are told from a character’s viewpoint, they often have an emotional dimension that can draw the audience in more easily. This effect can be further amplified by choosing images and special sound effects which convey the message effectively.

In terms of stimulating language output, digital stories, as (Hwang et al. 215-241) suggested, provide students with further opportunities to practice language structures

and forms, as they use language through a variety of modes such as verbal, audio and visual.

4. DIGITAL TAXONOMY TO EASE SCAFFOLDING

Nowadays, there is a greater importance of developing language and learning strategies autonomously. Back in 1978, Vygotsky stated in his Zone of Proximal Development, that if a student has the appropriate support, he will obtain the necessary self-assurance to carry out the task by himself. Every child has a different ZPD, as each child has different experiences and skills compared to others, requiring the teacher to discover the level of support, or scaffolding, needed by each individual. Effective scaffolding techniques vary according to students' needs and enable successfully completion of otherwise complex tasks, as Maybin, Mercer and Stierer state:

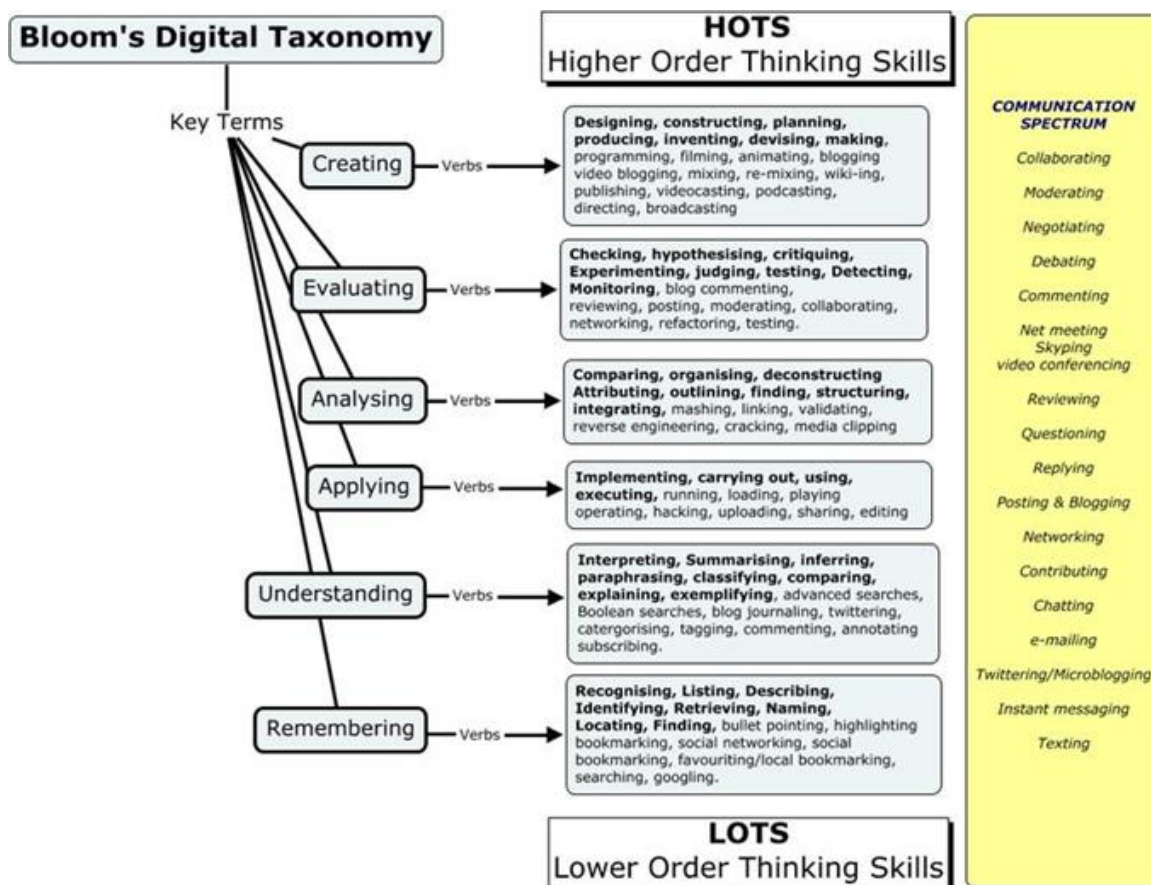
[Scaffolding] is not just any assistance which helps a learner accomplish a task. It is help which will enable a learner to accomplish a task which they would not have been quite able to manage on their own, and it is help which is intended to bring the learner close to a state of competence which will enable them eventually to complete such a task on their own. (188)

For this intervention, we will base the process of scaffolding on Bloom's Taxonomy where objectives are defined through tasks to reach specific goals. A one-hour session was given to each class to familiarize themselves with *Storyjumper* teaching them how to sign in, how to create their E-book, share the E-book with family and friends through social networks, how to choose backgrounds, avatars, and add messages and their own voices. In addition, as the students were required to base their story on the story mountain structure (beginning, climax and resolution), examples were provided during this initial session to serve as modelling. To foster students' ZPD, students could freely choose their group members creating a channel for peer support, and teacher guidance was provided during the classes and via e-mail to carry out the task. Bearing in mind that the students were already familiar with ICTs, they advanced quickly from using Lower to Higher Order Thinking Skills when creating their own digital story.

Here we can see an example of the process of story creation, in terms of the thinking skills required: Once the students start making up the story, they need to Remember words because they have to locate the story, describe the characters and then Understand it, by comparing different situations or providing examples. The next step is Applying this information by editing the sentences or adding images to make it more clarifying. These

previously mentioned steps (Remembering, Understanding and Applying) correspond to the LOTS. Once they are ready for deeper learning, they Analyze the situation, by organizing the plot or comparing the characters. Students Evaluate how the characters feel towards a specific circumstance. The final objective is Creating a story, with planning, producing, inventing, animating and broadcasting, thereby achieving a final product. The student has advanced from Lower to Higher Ordering Thinking Skills, potentially achieving deep and critical understanding. Teacher and peer support has been gradually reduced, enabling the student to become increasingly more autonomous.

Figure 1. Bloom's Digital Taxonomy Concept Map (Shafer, K. G., 2010)



4.1. Storyjumper as the tool for digital stories creation

Storyjumper was selected among the wide array of digital storytelling tools (e.g., *Storyboard*, *Storybird*, *Wakelet*) as free registration allows full usage (users can buy hard copies of their books) and it offers an unlimited use of royalty free avatars, pictures, special effects along with the possibility of personalization through the addition of one's

voice and images from the internet. The process is sufficiently versatile for both beginners and more advanced users. It is also worth highlighting that in times of change within mainstream education with its shift into online learning due to the Covid19 pandemic (Royal Decree 463/2020, article 9.1), *Storyjumper* is also compatible with Google Classroom which avoids individual pupil registration in the platform as teachers can add existing classes. This feature allows teachers to add and keep track of pupils' work.

5. METHODOLOGY

Sixty-two 5th year Primary students from a bilingual school in Madrid, Spain, were asked to create a story using the editing platform *Storyjumper*, linked with Google Classroom. Instruction took place over 6 sessions through Google Meet in May and June 2020 when classes were necessarily online due to the Covid 19 pandemic (Royal Decree 463/2020, article 9.1).

The first class included reviewing and discussing conventional storytelling features such as structure using the "Story mountain", commonly found discourse markers (then, suddenly...) and the frequent use of the past tense. In the second class, through screensharing, pupils were introduced to the main features of *Storyjumper*. In subsequent classes, any difficulties and questions that arose from the use of *Storyjumper* which could not be answered by the teacher were solved through pupil collaboration; pupils who had managed to solve that difficulty shared their screen and explained. As pupils handed in their work, they were offered the chance to tell their story to the peers through screensharing. This was taken up by 15 pupils. In the following table, we can see the overall format of these sessions:

Table 6: Example of class instruction to implement *Storyjumper* in digital storytelling

<i>Session</i>	<i>Class format</i>	<i>Classwork</i>	<i>Individual homework</i>
1	Online (Google Meet)	Reviewing and discussing conventional storytelling features	-
2	Online (Google Meet)	Introduction to <i>Storyjumper</i> through screen sharing	-

3	Online (Google Meet)	Pupil collaboration in resolving questions and difficulties. Pupils presented their stories through screensharing	Story writing using
4	Online (Google Meet)	Pupil collaboration in resolving questions and difficulties. Pupils presented their stories through screensharing	<i>Storyjumper</i>
5	Online (Google Meet)	Pupil collaboration in resolving questions and difficulties. Pupils presented their stories through screensharing	
6	Online (Google Meet)	Pupil collaboration in resolving questions and difficulties. Pupils presented their stories through screensharing	

Students were free to choose their topic and plot, with the proviso that finished work would be shared online with their peers. The chosen platform allowed students to incorporate avatars, sound effects, voices, pictures and hypertext to add extra information. Throughout the story, written texts feature narrations and dialogues between different characters, giving into a wider approach to the FL to foster oral and aural skills.

The pupils' stories were shared via Google Classroom into their virtual subject database using an institutional Gmail account for each pupil. This enabled the teacher to monitor and manage uploads and contributions more effectively and offer feedback.

6. DISCUSSION

Of the 62 stories, we have included here examples from those that have included more conventional storytelling features (i.e. the "story mountain" structure and opening hooks) and have managed to achieve what could be considered as well-rounded, attractive and entertaining Digital Stories for the authors' age (10-11 years old). Likewise, some traditional storytelling features will be analyzed. As we can see in the following example, the story begins with a hooking question that engages the audience from the outset "*Would you believe me if I told you that there is a possibility that you have superpowers?*" The narrator, who is generally omniscient, knows the characters very well but will sometimes turn into a second person narrator answering some questions as if she was part of the audience with "*Yeah*".

Following the patterns of oral tradition, this story is meant to be told but as it is displayed in a written format there is a combination of informal language like “*yeah, you’re, hold on, gonna...*” with more formal structures such as, “*there is a possibility that you have superpowers.*”

The main character is in the forefront looking straight at the audience inviting us to take part in the story. As in the majority of stories, she will introduce herself and set a place; she lives in Austin and her name is Odette. To increase the audience’s interest, she says “*believe me you are not gonna get bored*”. See figure 2.

Figure 2. Image of the “Gem Crown”



She will then introduce her other family members; her brother will play the role of the narrator by introducing himself.

Figure 3. Image of the “Gem Crown”



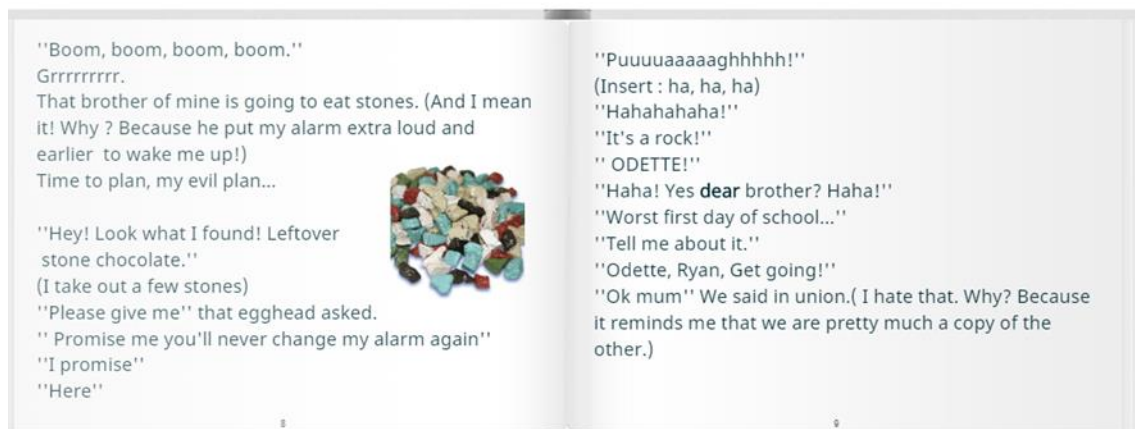
Although there is a frequent use of the simple past and the simple present, the narrator will do a flashforward to year 2070. Parenthesis are used when there is a need to clarify something like UK that stands for University of Knowledge or the real tone of a sentence *“Don’t ask me if that was sarcasm cause not even I was sure”*. The narration is interwoven with the dialogues to make it more dynamic *“Am I overreacting?”* with *“Odette!”* *“Yes, mum!”*

Figure 4. Image of the “Gem Crown”



In the same vein, she will introduce dialogues with her brother throughout the narration to make it more realistic and dynamic. As a reflection of oral speech, there is an overuse of exclamation marks “*Hey!, Look What I found!, It’s a rock!*” that express surprise, or call the audiences’ attention and onomatopoeic expressions due to a lack of special effects like “*Boom, boom, boom*”, “*Grrrrrrr*” “*Puuuuuuuuuuuuuaaaaaaaaaaaaaaghooooooooooooo*” with the aim of engaging the audience more into the story. As an omniscient narrator, the audience will witness how she plays a joke on her brother giving him stones instead of chocolate, as you can see in figure 5.

Figure 5. Image of the “Gem Crown”



The next figure corresponds to the confrontation stage which is the arrival to the new school and how she felt the first day. Her first impression seemed to be successful because she met a partner who was *"smart and funny"* she then adds *"we had a blast"*. The two last figures display a more thorough description with the use of adjectives *"horrible, girl with brown hair and black eyes, smart and funny"*, giving the reader a more objective perspective.

Figure 6. Image of the "Gem Crown"



Figure 7. Image of the "Gem Crown"



The following story starts with a hooking question in the cover, as can be seen in Figure 8.

Figure 8. Image of "What does Cats do at midnight?"



Allusions to time and place are not precise which implies further mystery *"It was a beautiful day"* but then become more accurate: *"My cats go away from [sic] house at midnight"*.

Figure 9. Image of "What does Cats do at midnight?"



Clara will be the omniscient narrator who will discover a great secret, *"Her cats can talk!"* and the narration is interwoven with dialogues with her pets, as we can see in the following figure. This changes to more formal and longer sentences reproduced by the narrator, *"Claudia liked what her cats do, so she asked her cats to go with them on [sic] midnight to help them hunt,"* with shorter sentences as part of the dialogues with the cats in figure 11.

Figure 10. Image of "What does Cats do at midnight?"



Figure 11. Image of "What does Cats do at midnight?"



Another feature of storytelling is the great use of repetitions of key words as *cats*, *midnight*, *love*, *well* due to their didactic purpose. The story follows the structure of introduction, through the question posed at the beginning, climax, when she discovers that her cats could talk and end when she gets to the conclusion after hunting together that she can make a perfect team with her pets, as we can see in the figure above.

The next story entitled “Howling Spirit” starts with the opening hook, “*I was a baby, but not like every other, I had wolf hands*”. Throughout the story, the reader finds out why the main character is half human-half wolf.

Figure 12. Image of “The Howling Spirit”



In this story, there is a prevalence of deictic elements to refer to place, “*This is the Orphanage*”, “*This is my bedroom*”, to animals “*This is my dog Laika*” and to people “*This is*

me”, which in all cases are close to the narrator and are cataphoric, because they will be referred to after as *orphanage*, *bedroom*, *Laika* and *me*. Presumably, these elements are included to help the reader navigate the story.

Figure 13. Image of “The Howling Spirit”



Another feature of storytelling is the use of sequence connectors to keep the action going chronologically “so they operated [sic] me”, “so she decided to be both a human and a wolf” but also to express opposed ideas or situations: “But then I heard somebody calling me...” “But then a bear attacked them”, “Even though he hurt Jane”.

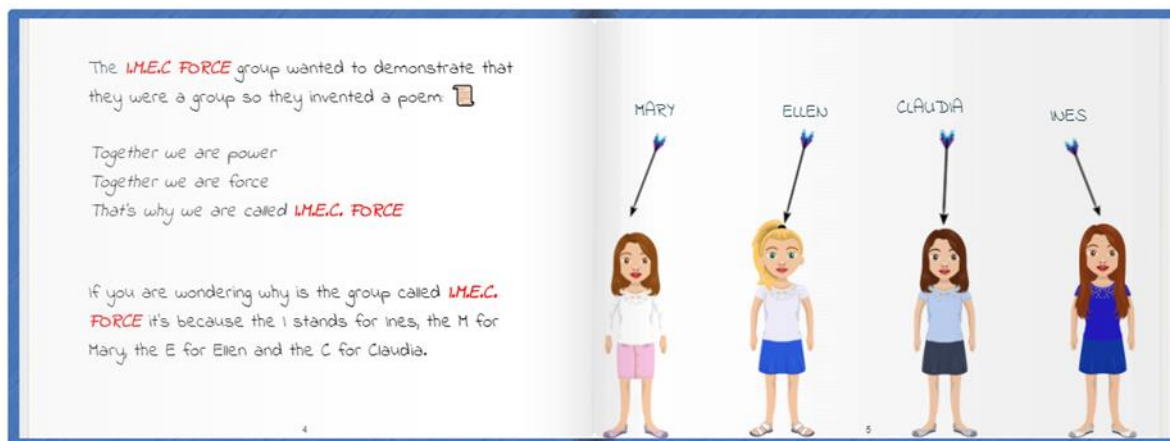
Figure 14. Image of “The Howling Spirit”



The following story entitled “A Deep Sleep” starts with the narrator directly addressing the audience with “I will tell you a story about my friends”. This is followed by the name of

the group which is an acronym I.M.E.C. Force to increase the readers' interest and the mystery unfolds in the following pages. This acronym stands for the names of the characters, I for Inés, M for Mary, E for Ellen and C for Claudia as you can see in the following figure.

Figure 15. Image of "A Deep Sleep"



The authors have included repetitions and rhymes which ease memorization, in this case corresponding to the motto of the group *"Together we are power, together we are force, That's why we are called I.M.E.C. FORCE"*.

The turning point in the story is when a new girl called Emma wants to join the group, but she does not feel happy from the beginning. In this case, the words quoted by the narrator *"she looked like she was forced, I mean look at her face"* are supported by images (see figure 16).

Figure 16. Image of "A Deep Sleep"



As the story is in a written format, some parts that need to be emphasized or should remain unknown are written in capital letters “SOMETHING WAS GOING ON WITH HER” (see figure 17) and “IT LOOKED LIKE A WICHES (sic) HOUSE!!!” (see figure 18). This would be extrapolated to the oral format by increasing the tone of voice.

Figure 17. Image of “A Deep Sleep”



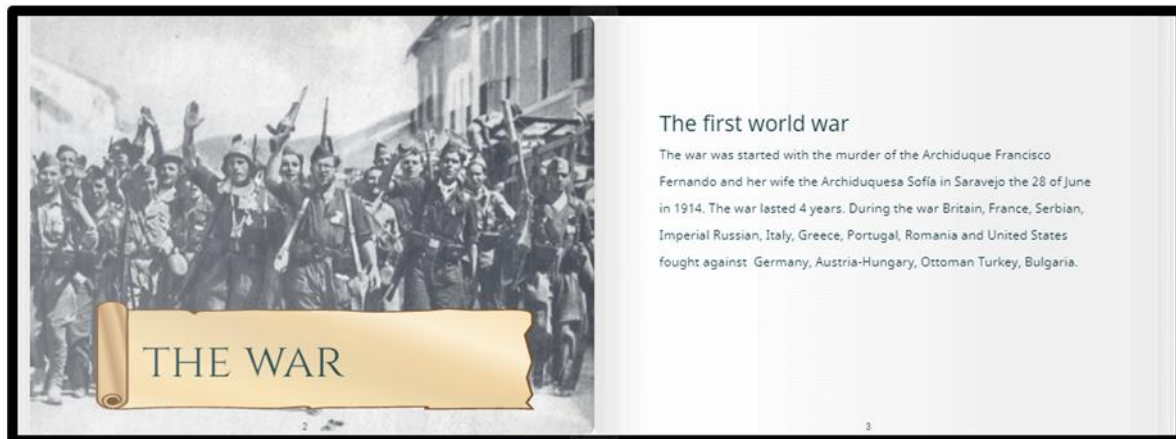
Figure 18. Image of “A Deep Sleep”



The following story called “The War” fosters cross curricular skills because the content focuses on WWI. In contrast to the previous stories, the main character is the narrator who will describe the beginning of the war, the number of deaths and the trace in the third person. The lack of dialogue between characters makes the story more impersonal and

because attention is focused on content with a more objective register. CALP terminology (*war, fight, civilians, trace* and *empire*) is combined with more common BICS language, (*people, started, peace, countries, day*, etc). The content is scaffolded for the reader through its association with a real life context with the photograph.

Figure 19. Image of “The War”



7. CONCLUSIONS

The stories presented in the article provide an example of the use of CLIL methodology through the 4 C's. Regarding Content, some stories deal with the topic of Science related to animals, while others talk about History. Sharing these stories with peers could potentially help to widen students' knowledge. The use of repetitions and key concepts may foster a deeper understanding that is complemented with images and sounds, making it a richer experience. The C for Communication has taken place between the narrator, generally omniscient and the audience, who was invited from the outset to take part in the story, through a written and or/ oral format. Fostering communication has been facilitated through students being able to choose their favourite topics and share them with the rest of the class. These have been accompanied by images and sounds which making it more visually and aurally appealing. The C for Culture has been introduced in all cases by using ICT tools and highlighting values such as respect for others, love for animals, the importance of friendship, the meaning of war, the first day of school, the family, etc.

The stories analysed share inherent features of storytelling- starting with an opening hook to engage the audience from the outset; repeating key words or ideas with a didactic and entertaining purpose; combining narration in the third person with dialogues to make it more realistic and dynamic; mixing informal language through the use of (exclamation marks, fillers, colloquial expressions, abbreviations, short sentences) with more standard language (longer sentences); and following the structure of beginning, climax and confrontation. Another feature of storytelling is the use of rhymes to ease memorization and the prevalence of sequence connectors (*so, then, after*) to keep the action going in a chronological order. Most stories, as they are narrations, are expressed in the simple past tense because the action has already taken place, which in some cases, combined with the simple present give the action a closer and more vivid impression.

Following Bloom's Taxonomy Digital Map, all the stories analysed start in the LOTS (Low Order Thinking Skills) by remembering words or concepts adapted to different contexts to end up creating a digital story in the HOTS (High Order Thinking Skills) after editing, evaluating and comparing, through this editing platform. As a result, this process allows students to work more autonomously, in an attractive and dynamic digital environment.

This small-scale quasi experiment aims to highlight the potential benefits of incorporating digital storytelling into the classroom to encourage unguided language output in a way that is enjoyable and confidence boosting for the pupils. Despite this, we are aware of the limitations of the study. Further larger-scale interventions with extensive data analysis are required to determine the extent of the benefits of incorporating digital storytelling into standard CLIL classrooms. These interventions could take place online or face-to face, provided schools have the necessary access to technology in classrooms. We believe that elaborating research into the use of ICT to stimulate and scaffold unguided writing in CLIL contexts is fundamental as writing in foreign languages in remains a challenge for many pupils.

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Jesús García Laborda
Universidad de Alcalá, Facultad de Educación-Instituto Franklin
Jesus.garcialaborda@uah.es

Umaima Kassemi Serrouk
Universidad de Alcalá
umaima.kassemi@edu.uah.es

The field of English for Specific Purposes (ESP) is constantly changing. Many books are published each year on foreign language learning for professions both in educational institutions and in the workplace. A quick Google Scholar search also provides evidence of the increasing number of researchers with a high number of citations who, directly or indirectly, influence or participate in the evolution of ESP. In this sense, García Laborda and Litzler (40-41) place special emphasis on changes in the interaction between content and language learning, such as the rapid adoption of Content and Language Integrated Learning (CLIL) since the beginning of this century. For these authors, CLIL is situated at one end of a content-language continuum whereas the other end is traditionally occupied by ELT (English Language Teaching). Obviously, both extremes should not be confused because the objectives, teaching styles and teaching techniques are very different. Kenny and Escobar's edited volume states that there are few books related to classroom applications in combination with other disciplines such as CLIL, ELT or EMI (English as a Medium of Instruction).

This book is most welcome in the field of languages applied to professions or specialty languages because of its compilation of international experiences pivoting around three fundamental axes or parts: 1) *ESP in specific fields*; 2) *ESP through technology and culture*; and 3) *ESP and EAP¹ in CLIL and ELT*. Additionally, there is a thought-provoking introduction written by professor Bárcena from UNED, the Spanish national open university. The first part consists of four chapters that discuss the construction of

¹ English for Academic Purposes

formulaic language in aviation (chapter 1), the practices of code-mixing in advertisements and posters in different cities of Jordan (chapter 2), the analysis of needs in the language curriculum of vocational training in Khartoum (chapter 3) and the teaching needs of ESP in business in Iran (chapter 4). The second part of the book also consists of four chapters that focus on technology and culture. Accordingly, chapter 5, which is of great human interest, focuses on digital literacy among the most deprived socioeconomic classes from the narration of Karen immigrants from Myanmar in the United States. The study shows that interaction with the teaching staff of the educational centre and the integration of digital literacy facilitates their integration in the humblest social sectors, giving them access to culture and education and, predictably, fostering their educational improvement and their standards of living. Chapter 6 focuses on experimenting with the use of The Beatles songs in teaching ESP. The method, to say the least, seems very interesting and the results of the qualitative study carried out by the authors show that this method is not only useful but also highly motivating for students. The 2030 agenda on sustainability appears in Chapter 7, which deals with e-learning in higher education, arguing that the right to education with equal opportunities is not a luxury but a necessity, especially through lifelong learning programmes; among them, those related to specialty languages. In order to illustrate this, an example is described carried out at the Faculty of Modern Languages at the Saint Petersburg State University. The last chapter of this second part focuses on a very attractive review of the perceptions and misconceptions in ESP through a reflection on needs and asserts that the potential of ESP is immense due to its capacity to adapt to learner needs. It is very interesting to note that Gaye, the author, states that ESP is not a subdivision of general education but has its own characteristics that make it as valid as general English education.

The pedagogical part is contemplated in the third part of the book, reviewing questions such as the organization of ESP courses (chapter 9), contemplating in a generalized way the inclusion of L1 in teaching, thus promoting translation in a more or less direct way, as well as the effect of the experience described depending on learner characteristics. Chapter 10 deals with reading strategies and their association with cognitive processes in foreign language content courses. The chapter concludes that students require a critical and evaluative version of reading materials. Chapter 11 focuses on a technical aspect with a very specific interest in the investigation of transitivity in relative clauses with “that”. On the other hand, chapter 12 focuses on the design of research in academic writing in the

field of psychology, where the importance of professional writing in ESP is clearly shown, thus evidencing the difficulty in developing writing skills. The issue of including emphasis on writing papers specifying content clearly, a fundamental issue in academic writing, especially when it comes to producing and reflecting advances in the different fields of knowledge. Only one chapter deals with CLIL, chapter 14, which focuses on content and language learning emphasizing that instruction should not only focus on interlinguistic contrast but also prioritize the integration of complex interfaces.

The thematic scope and the detail with which some of the chapters are treated is very significant. It reflects the deep ramifications that exist in ESP and the necessary participation of multiple educational agents, among whom are teachers and administrators, without forgetting content, language and instructional design. This volume thus brings together a significant number of current issues in ESP while highlighting its sociocultural and discursive aspects. Perhaps one misses more attention to CLIL in this volume but understandably it is not one of its goals. However, there is a clear interest in EMI (English as a Medium of Instruction) in higher education. To conclude, this book is of great interest and is no doubt opportune, and will attract researchers and practitioners alike who are interested in the design, development and research in ESP.

BIBLIOGRAPHICAL REFERENCES

García-Laborda, Jesús y Mary Frances Litzler, M. F. "Current Perspectives in Teaching English for Specific Purposes". *Onomázein* 31,2015, pp 38-51. DOI: 10.7764/onomazein.31.1

THANK YOU NOTE

This volume was initially conceived a few months before the public defence of my PhD thesis on Information and Communications Technologies in Content and Language Integrated Learning (CLIL), in December 2019 at UNED (the Spanish National Open University). Since I strongly believe that both empirical research and current didactic experiences combining ICT and CLIL are strongly called for, I asked Prof. Ana Gimeno-Sanz (Universitat Politècnica de València, Spain) to collaborate with me in this special volume as a guest editor. First and foremost, I would like to sincerely thank Prof. Gimeno-Sanz for the trust she has placed in me. Secondly, I would also like to thank all the authors who have contributed to this volume with enriching research and inspiring reflective practice. Thirdly, I am also grateful to Dr. Jesús García Laborda (*Universidad de Alcalá de Henares*) and his co-author, Umaila Kassemi Serroukh, for contributing with a book review that closes this volume. And last, but not least, my thoughts are for my beloved mother who is guiding me from Heaven.

Salvador Montaner-Villalba
Guest Editor of this special volume

IN MEMORIAM

This volume is dedicated *in memoriam* to Pepa Villalba (died on 10th Dec 2020), mother of Dr. Salvador Montaner-Villalba, guest editor of this special issue.

